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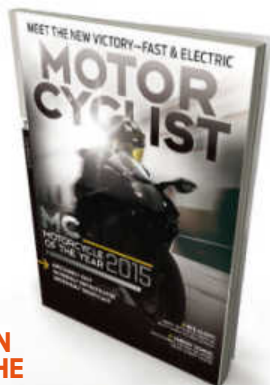
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Tim Sutton caught the fleeting image of our 2015 Motorcycle of the Year before it jetted out of sight, destination unknown. After, there was much Photoshoppery committed by our very own Kathleen Conner.

# MOTORCYCLIST

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MARC COOK



# WHAT I LEARNED ON MY SUMMER VACATION

**T**his summer I got to make the trip I've dreamed about for years: a literal cross-country on two wheels. I love to travel, but the day job sometimes limits my trips to jaunts up and down the California coast or just keeps me tethered to the office. (That's what I keep telling myself.) Over a lot of years on motorcycles, I've eventually learned the keys to making these treks safe and pleasurable. Here's what has worked for me.

**Hydrate like crazy.** Seems obvious, right? But living in a mild climate, I sometimes forget to pack my CamelBak and end up paying the price. This time, I kept it full of ice throughout the trip. It's amazing how a quick swig of really cold water can make a 90-degree day seem a lot less sticky. Staying hydrated, I tend to finish the day feeling less fatigued and less likely to be suffering the "road headache."

**Medications at hand.** Speaking of headaches, I've learned to bring a small bag packed with a prefabricated hiker's first aid kit along with an assortment of pain relievers, sunscreen, and allergy medicines. Over the course of the trip, I used them all. My motto: If you have them handy, you'll use 'em.

**"Early starts are the way to go during the summer—beat the heat and the traffic."**

**Be kind to yourself.** I made an effort to eat well and moderate alcohol consumption on this trip. As a result, I woke every morning feeling fresh and ready for more riding. On that note, early starts are the way to go during the summer—beat the heat and the traffic.

**Shorten legs later in the day.** As fatigue sets in, be wary of pushing too hard. Shorten up the legs between fill-ups and getting coffee.

**Big trips aren't where you test new gear.** I know it's tempting to buy a new jacket or helmet thinking how much better they'll make your tour, and I've done it myself. In fact, I did it again on this trip, electing to turn a side trip to the Twisted Throttle headquarters in Rhode Island into the acquisition of the Macna Chili summer jacket.

After looking at the weather forecasts for the trip, I decided to ship home the gear I was wearing for the BMW S1000XR product launch north of Toronto. That kit was chosen because I knew it was going to be cool and possibly wet for those couple of days, but I also saw that the weather was warming quickly along the southern route I'd chosen. I'm still waiting for the one piece of gear that's comfortable in ambient temps of 90 degrees that's also useful when it's 40 and raining. Could be awhile.

I'd hoped the combination of the Macna's mesh chassis and the rain over-layer I was packing would be ideal for the generally good, warm weather I was expecting along with the rain you're likely to get in the summer. More than that, though, I was rolling the dice that the jacket would fit well and be comfortable over the course of days. I lucked out. The jacket performed flawlessly after a day or so of break-in. But everything else I wore came from my go-to pile, including my well-worn Shoei Neotec, genuinely all-day-comfortable (and waterproof) Sidi Armada boots, and two sets of gloves, one vented, one waterproof.

**The Cooks, about to hit the road out of Albuquerque. Solitude can be great, but company is better.**

**It's more fun when it's more than one.** I rediscovered this as soon as I met my wife in Albuquerque. Not only was it desirable to slow the pace and shorten the days, but the trip benefitted from it. We were able to take side trips and wait out the weather without anything like time stress. In fact, when thunderstorms cut across our path near Pie Town, New Mexico (not a made-up name), my wife and I got to sit and watch the rain, sip coffee, and eat a slice of fresh blueberry pie. Which, after all, is what summer vacation is all about.



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# HONDA'S AFRICA TWIN REVEALED

Big Red's Off-Road-Ready ADV,  
With an Auto-Shifting DCT



HONDA

The world's largest motorcycle manufacturer has finally unveiled its much-rumored, oft-spied, highly anticipated adventure bike, officially called the CRF1000L Africa Twin. It looks set to fill a unique spot in the ADV category—and not just because it will be available with an optional auto-shifting dual-clutch transmission (DCT).

With a claimed 94 hp and 72 pound-feet of torque (in European spec; American Honda press materials don't mention power), the 998cc Africa Twin might seem outgunned by larger-displacement competition like the 125-hp BMW R1200GS and the 150-hp KTM 1190 Adventure R. But with a claimed curb weight of just 503 pounds, the Africa Twin should be considerably lighter than the competition and physically smaller too. Honda says the super-compact parallel-twin engine and careful mass centralization will enhance off-road agility, a hallmark of the original Africa

Twin platform that won the Paris-Dakar rally four times in the 1980s.

Buyers who select the optional DCT will choose between two full-auto shift modes (Drive or Sport) or shifting on demand using handlebar triggers. The DCT has been optimized for off-road use, Honda says, with an "incline detection" program that delays upshifts while ascending, holding a higher rpm for a longer time, and hastens downshifts on descents for better engine braking. The DCT option adds 31 pounds (including ABS) but uses a common crankcase so engine width remains the same.

The rest of the Africa Twin package appears to support all-terrain adventuring—and indeed, videos released at the same time suggest actual off-road capability. Bodywork is minimal, while a slim, height-adjustable (between 34.3 and 33.5 inches) saddle and a 5-gallon fuel tank combine to keep the bike feeling



**Spoked wheels are 21-inch front/18-inch rear, so off-road-ready tire choices should be plenty. Braking is supplied by a trio of Nissin brakes—radial-mounted up front—and wave-type rotors; switchable ABS is optional.**

narrow between the knees. Switchable ABS is available along with three-level Honda Selectable Torque Control (traction control), but these rider aids are only available in conjunction with the DCT option, not on the standard bike.

The CRF1000L Africa Twin will be available in two color options: Red/Black/White Dakar Rally or Silver. There's no word on price yet, but Honda says it will be in dealer showrooms across the United States in early 2016.

—Aaron Frank



**Will BMW be the next company to throw its hat into the small-bike ring? Sources say BMW is at work on a fleet of entry-level machines designed to take on the current crop of 300cc bikes.**





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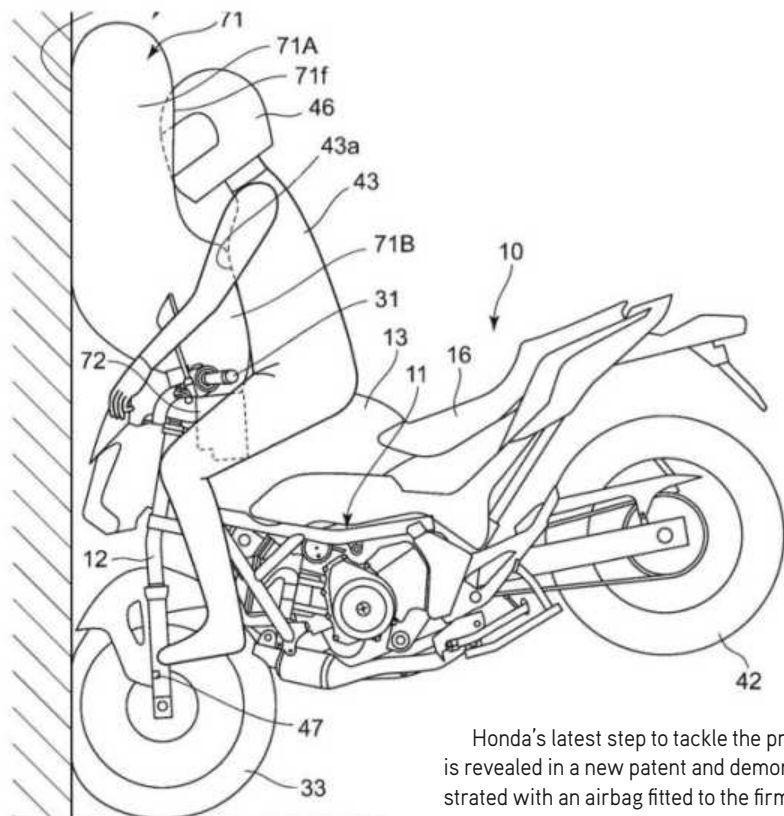
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# MORE AIRBAG BIKES IN OUR FUTURE?

Honda's Safety Horizon Expands with New Design



It's amazing that nearly 10 years after the introduction of Honda's airbag-equipped Gold Wing that it remains the only bike on the market equipped with airbag technology. While automotive airbags first appeared in the 1970s, it's taken decades for the technology to spread to bikes, largely because of the difficulty in predicting how a rider might be sitting in the event of an accident. (The Gold Wing is a unique candidate because the rider's trajectory in the event of a crash is somewhat easier to predict.)

Honda's latest step to tackle the problem is revealed in a new patent and demonstrated with an airbag fitted to the firm's NC750S (top right), which isn't sold in the US market but is closely related to the NC700X and CTX700. The main difference from the Gold Wing bag is the shape and size, with the new design gaining a long, vertical extension above the balloon-shaped main part of the airbag. This is to help counter the fact that most bikes will pitch forward in a frontal collision, throwing the rider upward as well as straight ahead.

The idea is that the lower part of the airbag will cushion the rider's chest and stomach, slowing him down before his head impacts the extended upper section.



HONDA

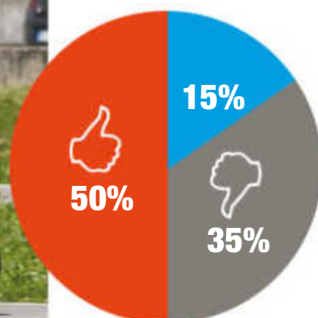
In impacts with cars, where the rider is likely to be thrown into or over the car body, the upper section is likely to fold over the body, providing at least some cushioning from initial impacts.

As on the Gold Wing, the new system is specifically aimed at frontal impacts and is therefore triggered by a sensor in the bottom of the fork. Highsides, lowsides, or any other accident where the impact is not directly from the front will not engage the airbag system.

The actual airbag technology, apart from its shape, is conventional. The bag is fitted inside a box mounted just behind the bars, and a small explosive charge creates the gasses needed to fill it in the fraction of a second between initial impact and the rider being thrown into the bag. Vent holes allow the gas to escape as the bag absorbs the impact.

Although airbags are never likely to be as effective on bikes as they are in the confined space of a car, where drivers can be surrounded by them on all sides, the combination of modern safety gear, including airbag-equipped leathers, and bags like this fitted to bikes themselves surely holds promise to reduce some injuries in the future.

—Ben Purvis



## WOULD YOU BUY AN FJ-07?

### Poll Results from MC Readers

When this spy photo of what appears to be a sport-touring variant of Yamaha's successful FZ-07 parallel-twin platform appeared, we asked our online followers to vote yay or nay on the prospect of an FJ-07. About 50 percent said they would buy a mini-FJ, while 35 percent pointed their collective thumbs down. The other 15 percent were non-committal; maybe it's those potential buyers Yamaha needs to convince?



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## VICTORY PROJECT 156

Is This Racer the Prototype for Victory's First Sportbike?

**P**roject 156—the name a reference to the 12.42-mile, 156-turn road to Pikes Peak's 14,110-foot summit—started when Polaris Design Engineer Alex Oppermann was daydreaming aloud about building a Victory-powered bike to compete at this year's 93rd annual Race to the Clouds hill climb. Supervisors asked him to look into it; when he reported back that he thought Victory could build a competitive bike, he was given the green light.

The Project 156 racer is a pure prototype, and Victory has shared virtually zero information about the one-off racing engine except that it's a liquid-cooled V-twin with dual-downdraft 67mm throttle bodies and a lightweight titanium valvetrain for maximum engine speed. The tubular chassis, which borrows its suspension and running gear from a Ducati Panigale superbike, was constructed by frequent Victory collaborator Roland Sands.



Project 156 qualified first in the Exhibition Class (and fourth overall out of 60 total bikes) and made a great start in the actual race, posting the second-fastest time through the first sector and setting pace for a class win until a crash in the second sector lead to a DNF.

With a sophisticated racing engine capable of keeping pace with the best superbikes up a demanding mountain road, Project 156 is a tantalizing teaser for future Victory bikes. We can't wait to see where this prototype DNA appears next—hopefully in a Victory streetbike equipped with turn signals and a license plate.

—Aaron Frank



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## POWER CRUISERS Victory Goes Drag Racing

**N**othing illustrates Victory's new "American Muscle" mission better than a 375-hp V-twin that rockets down the quarter mile in six seconds at nearly 200 mph. That's why Victory entered NHRA Pro Stock competition this year with the husband-and-wife team of Matt and Angie Smith. The Victory Gunner-bodied pro stock machines debuted at this year's Gatornationals, where Matt qualified in the top spot running 6.793 seconds at 197.74 mph. A win can't be far behind.

—Aaron Frank

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## CONTINENTAL SPORTATTACK 3 HYPERSPORT TIRES

Even Better When it's Wetter

➔ Once almost unknown in the sport-bike tire arena, German tire giant Continental is now a major player with its SportAttack, a tire so capable it's OEM spec on BMW's king-kong S1000RR. We recently traveled to the Red Bull Ring in Spielberg, Austria, where we had the opportunity to test the latest SportAttack 3 on variety of superbikes on both the road and the track. We left duly impressed.

Conti's goal for the third-generation SportAttack was to improve wet grip without compromising the dry grip that was the SportAttack 2's signature trait. Testing showed—counterintuitively—that a harder compound actually yielded better wet grip when paired with a softer carcass, so the tire was redesigned accordingly. At the same time the carcass was enlarged slightly to increase the footprint, further improving grip and also stability especially under braking. The end result, Conti claims, is nearly a 20-percent



improvement in wet grip and a slight improvement in mileage, with no change in dry grip or outright handling. (Dry conditions at this test prevented us from assessing wet performance.)

The SportAttack 3 looks big on the bike—an effect enhanced by deep, prominent rain grooves—and it feels taller too; both the Yamaha R1 and Aprilia RSV4 seemed to turn quicker on Continentals than on the Pirelli Supercorsas we rode during our recent Class of 2015 superbike test. Front-tire feedback—another signature SportAttack trait—remains



fine-grained as ever, enhanced by a now-more-communicative zero-degree steel belt, while outright grip remains excellent, even under the S1000RR's 185-hp onslaught. Conti's MultiGrip technology uses a special curing process to make the compound gradually softer toward the edges so there are no hard transitions—or potential slip points—as with conventional multi-compound tires.

Available in all common sportbike sizes, the SportAttack 3 will be at your favorite tire retailer beginning in January of next year.

—Aaron Frank



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JOE GRESH



# 2015 MOTY: AN ALTERNATIVE ALTERNATIVE TAKE

It's both an honor and a personal-branding opportunity to be asked for my votes in *Motorcyclist* magazine's ultra-prestigious, 2015 Motorcycle of the Year selections. Without further adieu, here are my picks for the best bikes on the market this year:

**Motorcycle of the Year:** The only 2015 bike I've actually ridden any distance is the Indian Scout, so it wins this category by default. There are many legitimate reasons for the Scout to be selected as MOTY, but I'm not choosing the Scout based on its merits. I'm picking the Scout because Polaris, the parent company of Indian Motorcycles, has done the best job fluffing my fragile motojournio ego. They've loaned me a Victory Vision to tour New Zealand and let me swan a decked-out Indian Chief around Daytona Bike Week. Then they loaned me a Scout for the long ride to Daytona *and* bought me a hamburger too. Casting my vote for Indian's Scout is a clear signal to all the other manufacturers. This is not brain surgery. Buy me a hamburger.

**Best Sportbike:** My wife shows absolutely no interest in motorcycles. She can't tell the difference between a Harley bagger and Honda 2,000-watt generator stuffed inside a bag, so it's telling that the few times she has deigned to point out a motorcycle and say, "That bike is really pretty," it was always a blood-red Ducati she was admiring. This fairer-sex appeal

*"My vote is a clear signal to all other manufacturers. This is not brain surgery. Buy me a hamburger."*

alone makes the Ducati Quadro-Pizzeria-Desmo-RR the Best Sportbike. Runner-up? The Indian Scout.

**Best ADV:** This category is a case of "least-worst" for me. I should probably vote for a KTM Super Adventure because people I trust tell me big KTMs are not entirely horrible... I think I'll pick the Suzuki Wee-strom 650, instead. Long-time readers know why. Honorable mention for Best ADV? The Indian Scout.

**Best Touring Bike:** If I was buying a new touring bike I'd buy the Ducati Scrambler, strap a bright-yellow stuff-sack on the rear fender, and go see the world. It would be just like *Then Came Bronson*, except Bronson's iron-head Sportster didn't ever need its valves adjusted. Remove the Morlock-style fairing and a 2015 Harley-Davidson Road Glide would objectively be a fine choice, but I haven't ridden one of those either. For some reason I don't get invited to H-D events anymore. Your next best option? An Indian Scout fitted with the optional saddlebags and windshield.

**Best Naked Bike:** The 1999 Kawasaki ZRX1100. Not only are ZRXs the best naked bikes, with classic styling and an inline-brick-that-cannot-be-broken engine, but they have the best Internet owner's group as well. If you can't find a clean, used ZRX, just go for an Indian Scout instead.

**Best Dual Sport:** I guess that voting up "Godzilla," my 1971 Yamaha RT1B, would look too much like our presidential election cycle. Time for new blood then: the Husqvarna FE 501 S, a real dirt bike with tons of power, a historic name, and no orange bodywork. I bet if I rode one I'd love it. Should the FE 501 S not

be able to complete its duties as Best Dual Sport, the Indian Scout with knobby tires would be a fine runner-up.

**Best Dreambike:** Technically a 2016 model but too important to ignore, Yamaha's new, two-stroke YZ250X. Add lights, an Autolube system, and make it

smog legal and it would be the old DT1 concept perfected for modern use. Trust me, Yamaha would sell a million of them. Honorable mention: You know this answer already.

**Best Cruiser:** Do you even have to ask?

**Best New Technology:** Self-driving cars shouldn't turn left in front of motorcyclists. If they do, rewinding the hard drive will convince the jury to award damages on your Indian Scout.

Joe doesn't know it yet, but this column is being paid for entirely in hamburgers. Not very good ones either.



*Even as a zygote young Mr. Gresh could be heard making vroom-vroom motorcycle noises, albeit very quietly as his mouthparts had not yet formed. It only got worse over time. Now, there's no way to stop his incessant bleating about motorcycles, especially if the topic turns to vintage Yamaha two-strokes.*





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# SUSPENSION OF DISBELIEF

One good way to judge your own level of riding competence is by asking yourself this question: Do you think about the controls, or do you think with the controls? There is a difference. Thinking about the controls is what you did while learning to ride; the lion's share of your attention went directly to operating the levers, handlebars, and twist-grip. Thinking with the controls is knowing what you want the bike to do and then using the controls to produce that result.

Case in point: How would you like the bike to feel when leaned over in a corner? Most riders agree they'd like the bike to feel stable. With that in mind, look at the bike and ask what it requires in terms of control inputs to achieve that state of equilibrium.

Conventional wisdom tells us that the purpose of suspension is to keep the tires on the ground. Tires kept in continuous contact with the roadway provide us with optimum traction, and this requires only suspension that is reasonably adequate and able to handle the road surface. But there is another very practical way of looking at suspension that fits in with our desire for stability.

An ideal suspension would respond to even the slightest pavement variation. All the peaks and voids caused by bumps, ripples, seams, and such would be absorbed and neutralized.

*“Ideal stability is not possible when the suspension is so far out of its compliant, mid-stroke range.”*

The bulk of the bike's mass—including the rider—would remain suspended and motionless on the vertical plane with only the slightest changes in pitch angle, if any change at all.

There are springs in the fork and rear shock(s), and no reasonably adjusted suspension will produce the above result if either spring is extended or compressed too much. The suspension must remain in the middle of the available travel, with the compression and rebound damping both adjusted accordingly, to approach that ideal state.

Think of the bike and rider in terms of a horse and jockey. Imagine that the horse is the road moving up and down. The jockey's body is the bike; his legs are the suspension. The jockey remains as motionless as possible on the vertical and pitch axes. His legs isolate him from the horse's stride variations. In the bike's case, the suspension—if approaching our ideal—would comply with any pavement imperfections well enough to completely isolate the bike and rider. Theoretically, a glass of water set on the tank would remain there without sloshing or spilling. (In case you're wondering, even the most sophisticated electronic suspension systems cannot do this—yet.)

Back to the point: Off the gas and entering into a turn, a majority of the bike's weight transfers forward, compressing the front suspension while trying to top out the rear shock at the same time. Ideal stability is not possible under these circumstances, when the suspension is so far out of its compliant, mid-stroke range.

As we come back into the throttle, the fork begins to unload and quickly return to its mid-stroke range. Weight transfer rear-

ward creates a similar result at the back end, returning the shock to its most-effective portion of travel. This move toward optimum suspension compliance is, at this point, the result of the rider rolling on the throttle and nothing else. Increasing the stability begins with rolling on the throttle.

Each time you roll onto the throttle with the goal

**Control and compliance can be greatly compromised when the fork is fully loaded and the shock is completely unloaded, as Dani Pedrosa demonstrates here.**

of achieving or increasing stability, you are thinking with the throttle, not about it. There is a clear, well-defined purpose for the action, and it produces a result you can immediately feel. In addition to stability, this also acts to optimize traction and improve the bike's ability to hold its line. Once any rider begins to understand and apply this concept of thinking with the controls, he or she has reached an important riding-skill plateau.



*Keith Code, credited as the father of modern track schools, founded his California Superbike School in 1980 and currently operates programs in 11 countries and on six continents. His A Twist of the Wrist series of books (and DVDs) are thought by many to be the bible of cornering.*





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# FUELING SPECULATION

Fuel prices have been pretty stable over the past months, which might indicate not much is changing in the petroleum world. Don't let the current lack of price activity fool you—there's plenty happening in the oil business that's worth looking at.

After the precipitous fall in oil prices last year, from more than \$100 down to the \$40-per-barrel range, prices have risen to the \$60 range and have stayed there for months. Compared to \$100, \$60 is still a low price, and the basic drivers for the low price remain the same: strong production and supply combined with reduced demand in many areas.

To put reduced demand in perspective, the highest number of miles driven in the US (Peak Driving) happened in 2005. Our miles driven today are down about 9 percent from the peak. Peak vehicle ownership happened in 2006, and the number of vehicles owned per person is down about 7 percent. Airline

producers averages more than \$100 per barrel, so these operations are not profitable at present. The drill-rig count has been dropping, and workers are being laid off in serious numbers. US production is just starting to show some decline, and that decline looks to accelerate soon.

Worldwide, demand is both up and down. In countries like Japan and Italy oil consumption is down much more than in the US—more than 25 percent. China and India, however, continue to show large demand increases, leading to slightly increased overall demand worldwide.

Asia may soon present supply problems. Total Asian production is at 8.3 mb/d (million barrels per day) with Asian consumption hovering around 30.9 mb/d. The 22.6 mb/d shortfall is currently covered by imports—a serious dependency on (sometimes unreliable) Middle Eastern sources.

Of 48 petroleum-producing countries, only 10 are seeing production increases. Seventeen countries have either flat production or are dealing with political instability that makes production uncertain.

And 21 countries, among them some previously strong producers, report declining production.

With both worldwide petroleum supply and demand more or less stable right now, we in the US are enjoying a run of smooth riding, with reasonable fuel prices that aren't changing much. But big forces are at work, some of which are very unpredictable. Demand will probably remain fairly stable, if not decrease somewhat. It's the supply side that looks to hold surprises.

We've seen the US tight-oil supply threatened by unprofitable operation at current prices. OPEC countries that are presently strong producers are under similar pressure and are also needing to keep more of their oil for domestic use as their economies grow, leaving less oil available for export. And in many areas there is always the wild card of war and political instability that may cut off production and/or complicate the transport of oil.

Some predict lower prices; some predict higher prices. What we do know from the price spike of 2008 and the price drop of 2014 is that almost no one predicted these accurately. Let's enjoy the current stability and keep an eye out for the wild swings.

“Right now, we in the US are enjoying a run of smooth riding, with reasonable fuel prices that aren't changing much. But big forces are at work.”

departures are down even more, about 16 percent below their 2005 peak. Average fuel efficiency has increased incrementally, further reducing fuel use, so, for the US at least, fuel demand is significantly lower than it was 10 years ago.

At the same time, supply has been at an all-time high. In the US, large production increases have come from hydraulic fracturing (or fracking) in oil-bearing shale—so-called “tight oil.” This is expensive oil because the fracking process is costly and the wells are not high producers relative to conventional wells. Oil produced from Canadian tar sands is likewise very expensive oil. When oil was \$100-plus per barrel, these production techniques made money, but at current prices the situation isn't bright. The break-even point for most tight-oil



While we're not exactly up to our ankles in extra fuel, reduced demand in the US has helped keep fuel prices low.

*James Parker designed his first original motorcycle in 1971; his most recent design is the Mission R electric superbike. In between, he worked on multiple other motorcycle projects, including 30 years spent evolving the RADD front suspension system used on the Yamaha GTS1000 and various other prototypes.*



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## BY THE NUMBERS

Your "Superbikes by the Numbers" (August, *MC*) was very interesting and an informative analysis. However, the power-to-weight comparison between the BMW, Ducati, and Yamaha is flawed. When comparing power/weight ratio for automobiles, it is acceptable to disregard the weight of the driver as the approximately 5 percent that the driver adds has a negligible effect on vehicle acceleration.

Things are quite different when we deal with motorcycles. Consider that a "modestly" sized rider in full gear can weigh 175 pounds. Using my example, the BMW weighs 626 pounds with a rider aboard, the Yamaha next at 614 pounds, and the Ducati at 603. The real-life power-to-weight ratio has now changed in favor of the BMW. The new order of things is: BMW at 3.39 pounds per horsepower, the Ducati at 3.41, and the Yamaha at 3.66. The reversal in the relative positions of the BMW versus Ducati stems from the fact that the rider's weight represents a larger percentage of the Ducati's weight than the BMW's.

**Barry DuRon / Pacific Palisades, CA**

*You are, of course, correct that adding a rider changes the power-to-weight ratios of all bikes, and that the result is most harmful to the lightest bike. As we know, this calculation is just one part of a bike's performance. Traction, the efficacy of the traction control system, power delivery, weight distribution, and clutch action all greatly influence quarter-mile times. —Ed.*

## CRUISING FOR A BRUISING

Ari's comments about cruisers are just flat wrong ("Re-Entry Points," June, *MC*), so long as we're talking about cruisers made this century. To each his own, but I had hoped your writers would be much more open-minded. After all, weren't you guys just telling us that we need to be good mentors and help bring more people to our sport?

After a fantastic trip on two wheels from Crestline to Ventura, then up the PCH to Stinson Beach with two of my older brothers, I can testify to the comfort of cruisers. I rented a Star Stryker, one brother rented a Honda NC700X, and the other rode his Triumph Bonneville T100 from Kingman to meet us. I'm the

## LETTER OF THE MONTH

## ROOTFUL

It is with great pleasure that I find Mitch Boehm's well-written articles in the pages of *Motorcyclist*. While I must confess that I have a bevy of new(er) bikes, including a BMW K1600GT, Honda CB1100, and a Triumph Thruxton, my passion is for the bikes of my youth, including late 1960s and '70s models. That is one reason Mitch's articles resonate so well with me. He has the natural ability to bring those bikes back to mind (full sensory overload!) as if I was riding them only yesterday. I can still smell the Klotz!

**Chuck Floyd / Whitehall, MI**

*Thanks, Chuck. Recalling the bikes of our collective youth sends most of us on an enjoyable journey back in time. We know you have changeable weather up there in Michigan, so we're sending you a set of Forcefield Body Armor's Base Layer garments courtesy of Motonation (motonation.com). These under layers are made from BeCool, which has a channeled thread that has three times the "diffusive" effectiveness of cotton, meaning you'll stay cooler. Sizes for men and women start at \$79 for tops (short- or long-sleeve) and \$69 for pants. —Ed.*



youngest, at 45, but we all suffer from lower-back issues, and two of us from neck and knee problems. Our best day was just under 300 miles. At nearly every stop those two complained about their sore butts. Me? No problem until the very end of our longest days, then 10 minutes off the bike and I could keep going.

**Brian Hofmeister / via email**

I was amused at the letter from John Millender in the August issue, accusing Ari of being a cruiser-hater. Welcome to the club. I've been riding for over 50 years and would definitely qualify as a cruiser-hater as well. But comfort is not actually the more important issue here. Safety is. If you are unable to stand on the footpegs, your safety is compromised. You will not be able to respond appropriately in various emergencies. I'm pretty certain that I would not be alive if I'd been riding a cruiser all these years.

**Bob Lee / Hilo, Hawaii**

## BANDITOS!

Just a quick question. I read the "Epic Rides" article in the August 2015 issue, and when I got done I had a question. In the sidebar titled "Before You Go,

Know..." you advise to pack your original title or a notarized letter of release in lieu of the title if one has a lien against their motorcycle. What is the purpose of this? Maybe when I hear the answer the light bulb will come on and it will be a no-brainer, but at the moment I cannot figure out the purpose of that, other than making it very easy to give up your ride when being held up by a group of banditos?

**Bill Keenan / via email**

*Alfonse Palaima replies: "You need the title mainly for proof that you aren't running bikes in to Mexico for the purpose of selling them. Tagging each person with each VIN/title/ownership provides the government security that you're not evading import taxation or bringing stolen goods into their country. They want to know that you brought it in and took the same machine back out of the country. When I rode to Panama I carried the original (because some countries like to make their own copies and charge tourists to do so), but more often got away with photocopies. In the case with Baja, copies sufficed." —Ed.*



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# ME & MY BIKE

## 2015 Victory Cross Country

### NAME

Urs "Grizzly" Pedraita

### AGE

49

### HOME

Zurich, Switzerland

### OCCUPATION

Professional Motorcycle Adventurer

➔ All my life I have been fascinated by motorcycling. I began long-distance touring six years ago, and now I've made it my life. My first really big ride was in 2013, a 9,000-mile, 37-day trip from Bern, Switzerland, to Vladivostok, Russia, and back—in the winter. In 2014 I unofficially broke the motorcycle record for crossing all continents at their longest distance, which was 120 days, two hours [held by Kevin and Julia Sanders]. I broke that record by about three days, finishing in 116 days, 12 hours.

Next I want to do it in 99 days. I want to ride 100,000 kilometers [62,000 miles] in less than 100 days. I will ride across all the required six continents and will add a side trip to Antarctica just to make sure no one can beat my record. I think Africa will be the biggest challenge, particularly between Kenya and Tanzania through Marsabit.

And the Siberian Taiga—I know from past trips there that the wolves are hungry, so I can't make any mistakes. I'll set off in February of next year, starting and ending my ride in Zurich. I will do a lot of practice rides this year to prepare—I'm planning for about 60,000 miles on sand, ice, paved, and unpaved roads to prepare and test my equipment.

Why a cruiser? I thought from the beginning that everybody does it with an adventure-touring bike, so I wanted to be different. The Victory Cross Country is an ideal bike because of its low center of gravity and agility for such a big bike. We are mostly working on the ergonomics and the suitability to ride through 2-foot-deep water. We will also use off-road tires, added LED lights for better visibility at night, and an extra-large, 8.7-gallon fuel tank. The rest of the bike will be more or less original equipment.





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# 2015 BMW R1200RS

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## THEY SAY

"A new dimension in sports touring."

## WE SAY

"...with time being that dimension."



In the minds of gracefully aging motorcycle enthusiasts, perceptions can count for fact. Trading in your fearsome supersport for a plastic-clad travel barge can be taken as the first shaky step off the staircase of youth. And once the tumble commences, so it says here, the fall is inevitable and hard. Open the garage door to see a motorcycle as big as a car. You could break your hip just backing it out.

Not if BMW has its way. Re-entering the category after a nine-year absence is the long-running RS, now based on the R1200R platform and carrying the prolifically used *wasserboxer* engine. Understanding the RS's positioning is easy: not an S1000RR, not an R1200RT. Sporty but not hard-core committed. Touring capable but considerably more lithe and manageable.

Plopping a handsome and aerodynamically effective half-fairing onto the R1200R chassis adds 12 pounds, for a claimed curb weight of 520. In most other ways, the R and RS are identical. It's the same engine and state of tune as on the R and the GS—a claimed 125 hp at 7,750 rpm and 92 pound-feet of torque at 6,500 rpm. There are changes for the R and RS compared to the GS, specifically the final-drive ratio.

Intended to have a strong touring element to its makeup, the RS gets a 2.82:1 ratio compared to the 2.91 of the GS. Otherwise, it's familiar territory with the liquid-cooled four-valve-per-cylinder twin, new wet slipper clutch (with an effort-assist feature), and ride-by-wire fueling.

Here's where we have to interject something about option packages, so sit tight; it'll make sense later. The base R1200RS starts at \$14,950, a price that includes basic traction control and ABS, two ride modes (Rain and Road), a spiffy multifunction display, and manually adjusted suspension. If you see one of these on the road, take a picture; the "stripper" RS is likely to be rare. Instead, you'll find more of them with the Standard package (\$16,025), which adds cruise control, heated grips, chrome exhaust, and saddlebag mounts. Most common will be the R1200RS in the Premium package (\$17,770), which adds keyless ignition, Gear Shift Assist Pro (up and down quick shift with auto-blipping on the downshift), Dynamic ESA (electronic suspension adjustment), GPS preparation, centerstand, luggage rack, and an enhanced on-board computer.

If you go all in, you'll want to add Ride Modes Pro (a \$350 option). Why? Here we are back to the engine. In the lesser forms,

the RS is delivered without a lean-angle sensor, so the traction control is the basic ASC, which compares wheel speeds and cuts throttle and/or spark accordingly. With Ride Modes Pro, you get DTC (Dynamic Traction Control), which is a finer, more sophisticated version that allows more latitude for fun. Also with Ride Modes Pro, you get an additional two ride modes, called Dynamic and User.

The Rain ride mode makes the throttle response softer than normal and resets the thresholds for TC and ABS to a lower level. Road gives more direct throttle response and higher thresholds. Dynamic sharpens the throttle response ever further and builds higher thresholds into the DTC. User simply allows you to mix and match elements of the other ride modes so you can have medium throttle response with higher thresholds, if you like.

We'd love to tell you how the RS works with Ride Modes Pro, but the testbikes at the Muskoka Lakes launch—about two hours north of Toronto—were not equipped with the lean-angle sensor and so were limited to two ride modes. Oh, the tragedy! They were, however, all fitted with Dynamic ESA. This iteration uses a 45mm Sachs fork with the ESA electronic







The RS's partial fairing frames the cylinder heads nicely (above). The dash sits neatly within the windshield bracket but proved difficult to read (top right). The Premium package includes the luggage rack, but the cases are another option (right).



## EVOLUTION

An entirely new model based on the also-new R1200R, sharing a lot of R1200GS DNA.

## RIVALS

Aprilia Caponord, Honda Interceptor and VFR1200F, Kawasaki Ninja 1000, Suzuki Bandit 1250S, Yamaha FJ-09

damping cartridge in one fork leg but no preload adjustment up front. At the rear, a Marzocchi shock gets dynamic damping and electrically adjusted spring preload to one of three settings.

The R and RS are essentially similar machines, but the RS gets minor tweaks for its more touring-oriented role. Specifically, its wheelbase is half an inch longer, it carries 0.4 inch less trail (at the same 27.7-degree steering-head angle), and its standard 32.3-inch seat height is 1.2 inches higher than on the R. Cast handlebar risers place the grips slightly lower and farther forward than on the R, but the position is very moderate, resulting in a slight forward lean of your torso. Thankfully, the standard seat affords good legroom; the stock saddle on the R cramps even shorter riders.

In the R1200RS, the personality you get is exactly the one you expect. In being neither too quick nor too ungainly, the RS stakes out the middle ground with superb, totally neutral handling, suspension calibrated right in the middle of the grid, and engine character that emphasizes midrange grunt and superlative manners over eye-watering thrust. Push on one of the heated grips and the RS carves into corners with total predictability. If you really want to hustle the transitions, plan on using a bit of body position or weight transfer. This is not a *flick-flick* kind of bike. But once it's carving, the RS is a gem—completely neutral and balanced. It'll continue describing arcs until you get tired of holding the throttle open, even as the D-ESA pumps furiously over rough pavement. On that: In the Dynamic mode, the system is nicely firm for smooth roads, with minimal fork plunge when you use the strong

(but not too touchy) radial-mount Brembos. But damping is a tad stout for really frost-heaved pavement, which seems to be a local craft in Ontario. Relax it to Road mode and it's much better, a pleasing combination of plushness and control.

Carrying over the water-boxer engine makes the RS a capable distance runner with minimum fuss and good mileage; we saw 43 mpg on the trip computer over 250 miles. The taller gearing works wonders here, giving the RS a truly relaxed cadence on the highway yet preserving some verve on the faster sweepers, where the bike wants to live. Less goat path and more grand, arcing secondary roads.

And while the RS carries much of BMW's signature technology—and the vast majority of it works seamlessly—there are still a couple of hiccups. In the upper gears, the Gear Shift Assist Pro works marvelously, but it's touchy in the lower gears; the auto-blip and ignition-cut schemes perform far better when you're riding with aggression. Moreover, the new dot-matrix instrument panel is a study in form over function, with an analog speedometer whose numbers are too small and too close together (consider the aged demographic!) and a bar-graph tach that's hard to decipher at a glance.

Overall, though, the RS is a well-developed, reassured, comfortable motorcycle, capable of exciting cornering performance before the footpegs begin tinkling off the pavement and promising excellent long-range comfort. We didn't

spend extended periods at the helm, but the firm saddle, very good aerodynamics (thanks to a two-position-adjustable screen), and low commotion level all hint at a bike you won't mind spending the day on. So before you trade in your supersport for a 600-plus-pound sport-touring rig, it might be worth looking at the RS. If this is the halfway point between youthful exuberance and the onset of seniorism, maybe a midlife crisis isn't so bad.



**Hitting the road? You'll want the Touring Cases, a \$1,043 option. They open easily and are each large enough to hold a full-face helmet. Total capacity is 63 liters.**

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CLAIMED TORQUE	92.0 lb.-ft. @ 6500 rpm
FRAME	Tubular-steel trellis
FRONT SUSPENSION	Sachs 46mm fork adjustable for spring preload with dynamic compression and rebound damping; 5.5-in. travel
REAR SUSPENSION	Marzocchi shock adjustable for spring preload with dynamic compression and rebound damping; 5.5-in. travel
FRONT BRAKE	Brembo four-piston calipers, 320mm discs w/ ABS
REAR BRAKE	Brembo two-piston caliper, 276mm disc w/ ABS
RAKE/TRAIL	27.7°/4.5 in.
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Excellence in motorcycling isn't hard to find. From the bottom rung of the ladder to the top, motorcycles are arguably better than ever, bristling with genuinely useful technology and delivering unprecedented levels of power and refinement. What's more, we're just now witnessing the birth of a new generation of bikes influenced by the economic collapse of 2008 and informed by a truly global marketplace—modest, high-value motorcycles equally suitable for Boston, Birmingham, or Bangalore.

Against this backdrop of technical excellence, increasing performance, and

exceptional value, a few motorcycles still stand out. Turn the page to see the one bike we think is the most significant of 2015—a machine that portends great things for a category we thought was lost and a potent reminder that R&D doesn't only happen in a laboratory. Then find our individual picks in categories ranging from cruiser to touring to adventure bike and more, along with noteworthy new technology and a superhero of the sport, too, and see if you agree that there's never been a better time than now to be a motorcycle enthusiast.

# MC YAMAHA YZF-R1 MOTORCYCLE OF THE YEAR 2015



## REDEFINING THE SUPERBIKE

If there was any theme to our annual MOTY award it might be that the prize has often gone to a motorcycle that was, among other things, unexpected at the time—whether its performance was unrivaled or its versatility broke new ground or the machine simply came from a company or sector we didn't anticipate. Not so in 2015.

With new sport-tourers, scooters, and naked bikes popping out of the tuning-fork factory left and right but no fresh super-sports, it was easy to identify the missing element in Yamaha's recent product line. Rumors bounced around the industry like a terrier wanting to be let out of a car, and

by the time the new R1 was shown to the world it felt like it was machined from a solid block of anticipation.

The brochure copy promised everything we had dreamed of, with a new version of the MotoGP-derived crossplane engine, mass-centralization, magnesium components, and race-grade electronic rider aids. Our hopes were spurred by the design theme, which had track-focused riders licking their chops—namely the obscured headlights and passenger accommodations that seemed like an afterthought. It looked like the R1 we all wanted, from every angle.

Then we rode it, and much to our

delight it felt like the bike we all wanted too. There's nothing quite like riding a motorcycle that, with one update, discernibly advances two-wheeled performance. The R1 is that bike, and it accomplishes that feat in an unusual way. Other bikes have more than 167 hp, weigh less than 450 pounds, and possess equal, if not better, electronic amenities. So how can this bike be so good? This is one way Yamaha has advanced motorcycle technology, by improving the interface and symbiosis of electronic rider aids. In other words not *more* electronics but *better* electronics.

Yes, the R1 is one of the most advanced motorcycles ever created, with an Inertial





Measurement Unit (IMU) measuring six axes of movement, using lean-angle and acceleration data to control traction, brake pressure, lateral slides, and wheelies. But it's how smoothly those systems interact with each other, and with the geometry of the motorcycle, that is unprecedented. The R1 is so calm and stable at speed it almost feels like time slows down. You feel like you can focus on exactly what matters in performance riding because the steering is superb, traction is perfectly controlled leaving corners, and your wheelie is always an exact height. It makes you feel like a better rider piloting a less powerful machine.

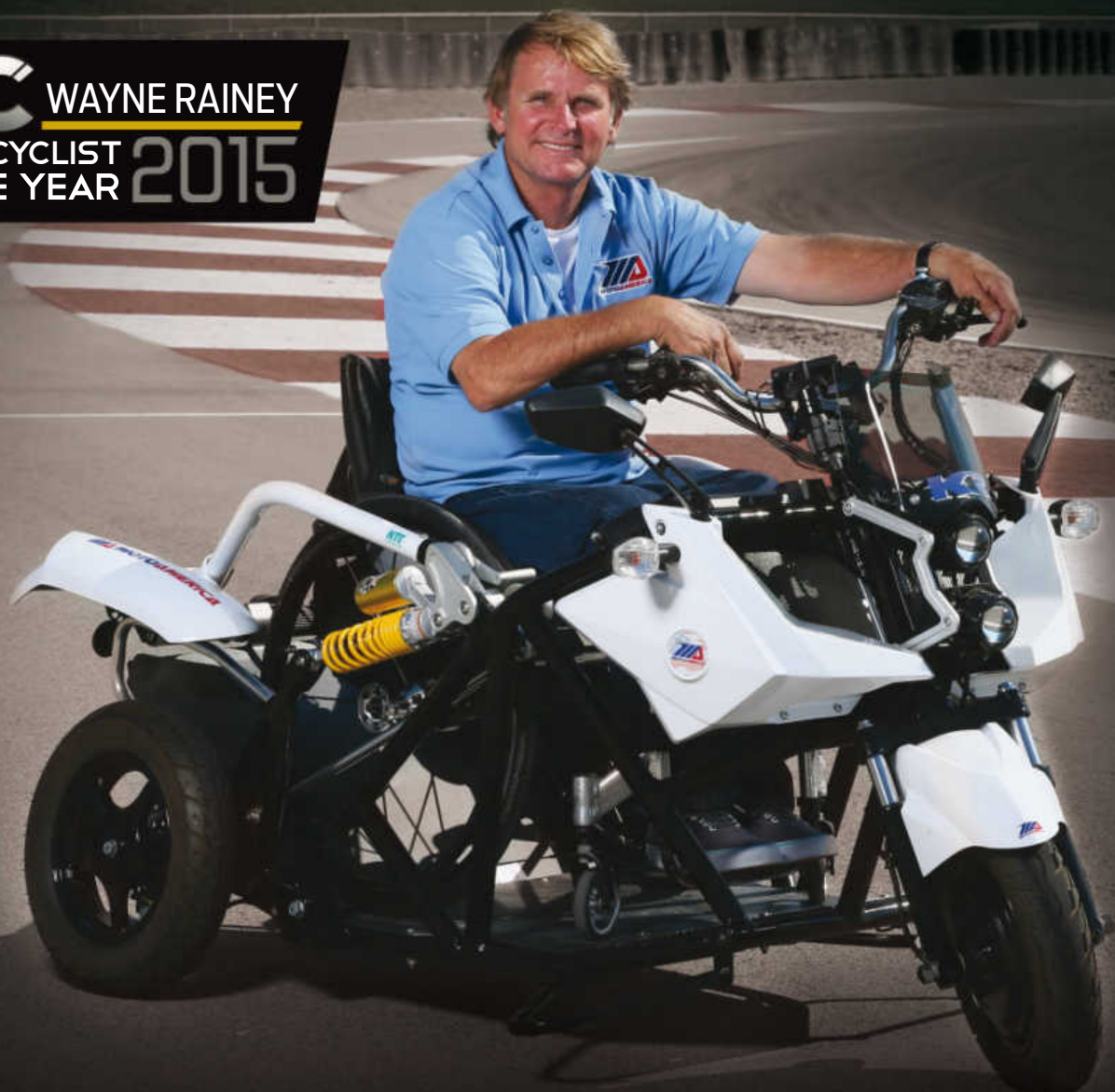
To show that European brands shouldn't soak up the entire superbike spotlight, Yamaha took the R1 a step further with the up-spec "M" version, which wears semi-active, electronic Öhlins suspension (also informed by IMU data) and carbon bodywork. The \$22,000 R1M does one other trick, too, one that catalyzes the entire 2015 R1 experience. A GPS unit mounted in the tail along with a Communication Control Unit (CCU) records all ride data (street or track) and allows the rider to download everything to a mobile device. This means all CCU data, from throttle input and brake pressure to lean angle and TC intervention, is viewable on a tablet.

Making you feel like a better rider is one thing, but the R1 actually allows you to study your own riding in order to learn what you can do better next time.

That the 2015 YZF-R1 manages to set itself apart from, and above, a competitive class of motorcycles is notable, but the fact that it has a base price of \$16,490 brings us back to expectations. When it comes to flagship supersport machines Japan has hardly been on the map in the past few years, still struggling to break free of the austerity brought on by global economic woes. This new R1 shatters those shackles and waves the rising sun higher than ever in the superbike battle.

# MC WAYNE RAINEY

## MOTORCYCLIST OF THE YEAR 2015



Wayne Rainey knows motorcycle racing. A two-time AMA Superbike champion (1983 and 1987) and three-time 500GP World Champion (1990–1992), the California native also served as a Grand Prix team manager (Marlboro Yamaha), event promoter (he played a pivotal role in returning the USGP to Laguna Seca), and, most recently, a regular race fan just like us, watching MotoGP from his couch on TV. Rainey has seen, studied, and participated in the sport from every possible angle, making him uniquely qualified to serve as president of the newly formed MotoAmerica sanctioning body that is revitalizing road racing in the US.

There's no arguing that American professional road racing was in dire straights before MotoAmerica assumed control in September of last year. Many of our most promising racers had all but given up on the American series, looking for opportunities overseas instead. But Rainey, who came up during the glory days of the 1980s and '90s, when American racers ruled the World Championship, wasn't ready to write the series off just yet.

"One thing that wasn't broken was the racing," Rainey says, describing the situation he and his MotoAmerica partners—Terry Karges, Richard Varner, and fellow moto-racing insider Chuck Aksland—stepped into last year. "Racers are always going to race hard. The talent was out there—we just needed to create a competitive platform."

MotoAmerica has already accomplished an amazing amount in less than a year: writing new rules aligned with FIM global standards to reduce development costs and encourage factory involvement; lining up new promotional partners and revenue sources; expanding the series from five to nine events; arranging a TV deal; and much more.

"You have to have a stable platform, one that makes manufacturers want to participate. Without their involvement and promotional help, it would be hard to make the series grow." Yamaha, Suzuki, Aprilia, and Triumph are directly backing MotoAmerica teams; Honda is back with large contingency payouts; strong privateer programs on BMW, Ducati, and Kawasaki motorcycles make the AMA paddock more diverse than it's been in years.

MotoAmerica also made opportunities for young, up-and-coming racers a priority. The new KTM 390 class allows amateur racers ages 14 to 22 to compete on a national stage using a spec bike to control costs and promote competition. "The KTM class was a risk well taken," Rainey says. "We had 31 entries at the Utah round, with a 14-year-old and two 15-year-olds on the podium. Families love being involved in a national event, and fans love seeing new talent come up. The opportunity [to advance] is very clear now, where it wasn't before."

Rainey, who was "all but retired" a few years ago, says that



# THE FORMER WORLD CHAMPION REVIVES AMERICAN ROADRACING

MotoAmerica has rekindled his passion for motorcycle racing. "The first thing I think about when I wake up in the morning is motorcycle racing," Rainey says. "I believe this group is making a difference, and that's motivating me. Looking back at all those experiences that formed my career, it's like everything lined up just to prepare me for this job."

It's also rekindled his competitive fire. "I see what we're building, and I see that we're getting more organized with every race, but you really don't know where you stand until you race against someone from a different series," Rainey says. "We would like to do that. I believe we have teams and riders now that can show other championships that the US still has riders that can be at the top. I believe our riders can race for the podium in any series in the world, I really do. Now I can't wait to show them."

Rainey is quick to point out that MotoAmerica would not happen without his partners and that he is simply an element of a focused, hard-working team. But those of us who have watched this nascent series emerge appreciate what Wayne brings to the program: a racer's focus, total credibility, and immeasurable goodwill. It's not to say that MotoAmerica would be impossible without him, but what Wayne Rainey knows about racing gives it an undeniable advantage when it's needed the most.

## 2015 BEST SPORTBIKE BMW S1000RR



### Savage Power, Impeccable Civility

Every time we ride BMW's 999cc S1000RR we're blown away. Not only is the double-R the most powerful bike in the category—slamming down a bona fide 184 hp in our latest test—but it's also the most civil superbike available and without a doubt the best daily rider in the class. The engine is so versatile it's since spawned other excellent all-around bikes like BMW's naked S1000R and the new S1000XR sporty tourer.

As a sportbike intended to deliver unparalleled performance, the S1000RR excels in nearly every respect. Power, weight, brakes, handling, electronic riders aids—they're all class leading or damn close to the best that's available—and at a price that's very competitive too. No one in their right mind will debate the double-R's athleticism or value.

And while we at *Motorcyclist* are decidedly sport centric, what we love most about the S1000RR is not its compress-your-eyeballs acceleration, or the fact that it tells you how deep you're leaning in turns, but how comfortable and composed it is all those days you're *not* at the track or strafing a twisty road. While most thoroughbred sportbikes make you pay for their performance with punishing ergonomics or barbecue-like engine heat, the BMW coddles you with a comfy seat, decent wind protection, and even cruise control and heated grips.



### ALTERNATIVE TAKE // APRILIA RSV4

No, it doesn't have electronic suspension or NASA-grade data acquisition, but Aprilia's V-4 is the most exciting and passionate means of turning gasoline into forward thrust that we've ever experienced. And that was last year's model. This year's bike, released as an early 2016 machine, magically cranks out an additional 20-plus hp. Adding more oomph to an already powerful and incredibly compact machine makes the RSV4 the top choice for riders seeking raw excitement and incredible performance.

2015 BEST  
ADV BIKE

BMW R1200GS ADVENTURE



## A Motorcycle Masterpiece

Many other manufacturers have tried to peel back the BMW GS's headlock on this category, and there are especially muscular contenders from Austria in the form of the KTM 1190 Adventure R (with a dirt bias) and the KTM 1290 Super Adventure (with a road bias). But no other manufacturer has quite managed the GS's combination of off-road ability, commuting and sport riding manageability, and genuine cross-country comfort.

Balance. It's all about balance. And the GS has this utterly nailed, as you might expect from a company working tirelessly on its core product for 35 years. You'd expect the tall Adventure model, with its 35-inch seat height, would be a handful for even average-size riders. And you'd expect that a machine weighing almost 600 pounds would be dismal off road. But it's actually quite good.

Plus! Ride 500 miles to arrive refreshed at your favorite twisty road, thumb the BMW's Dynamic ESA suspension to the stiffer settings, and enjoy peg-dragging fun. The GS's water-cooled boxer produces excellent low-rpm torque for negotiating tough terrain but also revs smartly to enough peak power that you never feel cheated. From the saddle, the GS seems like it can do anything you ask of it and do it well.

2015 BEST  
TOURING BIKE

BMW R1200RT



## Still Great, Yet To Be Challenged

Go ahead. Say it. We have an unreasonable man-crush on anything with BMW's new liquid-cooled boxer engine. We gush endlessly about the GS and now we're giving the similarly powered R1200RT the nod a second year in a row, as *a touring bike*. What's up with that?

There's a simple explanation. As motorcycle enthusiasts who bias toward fun and frivolity, our definition of a touring bike is one that includes the ability to pound out the miles as well as dance from apex to apex. And while we appreciate the four decades of Honda Gold Wing dominance in the traditional touring category and the great benefits Harley-Davidson has brought to its Project Rushmore interstate burners, we're still suckers for bikes that can go the distance *and* are a hoot to ride.

It's true. BMW had not changed the RT for 2015. But it also hasn't gained any new challengers—the Japanese sport-touring machines are holding station, and BMW's own über tourer, the K1600GTL, is, while still magnificent, getting long in tooth. For now, it's time for the RT to shine, combining rare sporting character in a bike built to leap state lines in serene, weather-protected comfort.



### ALTERNATIVE TAKE // KAWASAKI KLR650

Is the KLR the most advanced, desirable machine on the planet? Does it cause us to gather around a new one in the garage to *ooh* and *ahhh*? Not a chance. But every time we ride one, we admire it anew. Durable, undemanding, affordably priced, the KLR is the working-man's adventure machine with almost unparalleled aftermarket support. Farkle on, Garth.



### ALTERNATIVE TAKE // KAWASAKI VERSYS 650 LT

Maybe Kawasaki's smaller Versys seems an odd choice for mention in the touring category, but it's an amazingly good machine for chasing the horizon. Compact and inexpensive, the new 650 LT version, just \$8,699 with excellent hard bags—and now, much less divisive styling—reflects a host of small but useful improvements to the Versys platform. A staff favorite.



## 2015 BEST NAKED BIKE

### KTM 1290 SUPER DUKE R



## 2015 BEST DUAL SPORT

### HUSQVARNA FE 501S



### 100% Torque, 100% Fun

Why does the 2014 Motorcycle Of The Year win its category in 2015? That question might answer itself, but the deeper explanation is that nothing else has come along in the past year that gets within arm's length of the crown. BMW's S1000R is the Super Duke's main competition, and while the Beemer is a sublime machine, it doesn't speak to us with the same seductive voice as the KTM.

High-end componentry is everywhere you look on the KTM, from the massive Brembo brakes to fully adjustable WP suspension, but that's only part of the story. People sometimes scoff when we use the phrase, "greater than the sum of its parts," but this KTM is the perfect example. Foremost, nothing can compare to the Super Duke's 1,301cc, which is one of the strongest engines ever bolted to two wheels (92 pound-feet of torque and 150 hp, anyone?). Beyond that, the 1290 just works so completely well. The powerplant combines civil manners with utterly cosmic thrust, in a way that always seems perfectly suited to any situation. Comfy ergos and excellent suspension complete the nearly perfect package. Other bikes have power, comfort, amenities, and versatility, but few machines have this much of everything and also leave us with such an indefinable smile after a ride.

### Street Legal, Woods Ready

Legendary Swedish off-road maker Husqvarna has sometimes seemed rudderless in recent years, existing on the fringes for a while as a dirt-stained division of Italy's MV Agusta then making a detour as a subsidiary of German BMW, where Husky seemed poised to become the two-wheeled version of BMW's Mini automotive brand—complete with a line of quirky streetbikes.

Now a wholly owned division of Austrian manufacturer KTM (since 2013), Husqvarna is back, totally refocused on building world-class off-road machinery, and stronger than it's ever been in its 112-year history, selling more than 16,000 motorcycles last year alone. Leading the charge is the excellent FE 501 S, a street-legal dual-sport that is literally just a tire swap and a few stick-on numbers away from a national enduro-racing podium.

The engine is unchanged from the race-only FE 501, and the rest of the package makes only the most minimal concessions to legality, so nearly all of the race-ready performance and capability remains intact. Whether you're looking for a razor-sharp—and electric start—woods bike capable of connecting trailheads without trailering, or a solid foundation for constructing a truly off-road capable adventure-touring machine that puts the emphasis squarely on adventure, Husky's \$10,249 FE 501 S won't be beat.



#### ALTERNATIVE TAKE //

#### YAMAHA FZ-09

Oh, that engine! The FZ's 847cc inline triple is as stellar now as it was when it debuted last year. Think of Yamaha's FZ-09 as an adolescent version of KTM's Super Duke. It's not as polished or refined, but the Fuzz-9 still captures almost everything we adore in the 1290—including sprightly handling, torque-rich power, and a frisky attitude—only in a smaller, and much more affordable, package.



#### ALTERNATIVE TAKE //

#### HONDA CRF250L

We've been huge fans of the street-legal CRF since its 2013 introduction, mainly because of its cheerful disposition and low price tag. It's \$500 dearer these days at \$4,999 but still a fine, affordable companion for exploring trails and running around town. Its lack of power makes urban freeways something of a challenge, but in the right element there are few more docile, flexible dual-sports.

**2015** BEST BANG  
FOR THE BUCK

## YAMAHA FZ-07



### Say Hello to Our Little Friend

Yamaha is on a tear with innovative new product this year—and in nearly every available category too. Of course the YZF-R1 superbike sits atop our MOTY list this year, and don't forget the truly fun and all-new FJ-09 sport-touring hybrid along with its always charismatic (and newly improved) FZ-09 streetfighter sibling, all enough to make any Yamaha dealer smile. But the machine that might impress us the most is the FZ-07, an amazingly good motorcycle for just under seven grand. At this price point you might tolerate a power-challenged engine with a ho-hum personality. Marginal fit and finish? Well, you get what you pay for. So-so chassis? Yeah, probably.

Not here, not now. Instead, the FZ-07 exceeds expectations in every way. For starters, it packs a parallel twin with plenty of low-end and midrange power—making life easier even for new riders—and with a relaxed personality, to boot. It lopes instead of buzzes, thrums instead of sizzles. Not only does the 689cc engine do exactly what you ask of it, but the FZ's steel-tube chassis gives it a platform of strength. As expected, the suspension calibration is a little soft, but it's totally controlled and perfectly balanced. This is a bike perfectly sized for smaller riders, with more performance and liveliness than you expect. Proof that new riders don't need to accept sub-par motorcycles to join the sport.

**2015** BEST  
CRUISER

## INDIAN SCOUT



### Redefining Our Idea of What a Cruiser Can Be

It can be next to impossible to do something new in the notoriously conservative cruiser category and actually get away with it. In a class where retrograde styling and performance is often rewarded—if not actually demanded—it can be counterproductive to take risks or attempt to push the envelope in any new direction.

While Indian has been rewarded for (mostly) following the rules with its first all-new platform, the Chief, when it came time to devise the follow-up the company showed that it wasn't afraid to break all the rules with its second platform, the Scout.

Powered by a completely modern, liquid-cooled, eight-valve, DOHC V-twin with ride-by-wire throttle activation mounted in a cast-aluminum frame and wrapped in crisp, clean tins that make the 100-hp Scout look like it's going 100 mph standing still, the new Scout credibly updates the cruising experience without sacrificing any of the style, comfort, or charisma that cruiser buyers desire.

More importantly, with strong brakes, sporty geometry and a short 61.5-inch wheelbase, a lightest-in-class 558-pound claimed wet weight, and low, \$10,999 price, the all-new Scout has done the impossible and captured the attention of an entire new group of motorcycle enthusiasts who have never before considered the idea of a feet-forward motorcycle. This makes the Scout a risk well taken and one well worth rewarding.



### ALTERNATIVE TAKE // KTM RC390

Bang for the Buck was a hard-fought category, with the Yamaha just edging out the small KTM sportbike, but let's not let cutthroat competition diminish the Katoom's goodness. Indian built, sure, with one or two places that reflect cost cutting, the RC nevertheless is a true KTM, with class-leading power, precise handling, and edgy styling. All for \$5,499 with standard ABS.



### ALTERNATIVE TAKE // STAR BOLT

We could have put this up to popular vote and the result would have been the same, judging from all the Bolts we see riding down the road. Star is another company being rewarded for taking a risk, giving its middleweight cruiser platform an edgy, bobber-inspired makeover that opened the eyes—and wallets—of millennials and other untraditional cruiser buyers everywhere.



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2015 BEST DREAM BIKE

## KAWASAKI H2R



### Did Somebody Order 300 Horsepower?

Whether you're a seasoned veteran who fondly remembers the original H2 or a pre-license enthusiast clamoring for specs on the most exotic hyperbike, you have to be at least a little bit captivated by Kawasaki's H2R. The new, 998cc inline-four mill might not have the mystique or cachet of the original two-stroke triple, but there's plenty to drool over.

Start with the svelte, carbon-fiber skin of the R, all provocative angles partially coated with mirror-black paint. Kawasaki's first-ever use of a trellis frame stands out in metallic green, like a cage trying to hold a sinister, 300-hp monster. The single-sided swingarm is a first for Kawasaki, too, adding a hint of European glamour. Odd but exotic winglets produce downforce once the H2R reaches brain-scrambling speeds.

The centerpiece of the H2R is the centrifugal supercharger driven off the crankshaft, with the impeller spinning as high as 130,000 rpm to double the intake charge pressure and give what would otherwise be a pretty standard literbike engine gobs of low-end and midrange torque.

From a parade lap at the Isle of Man to runways around the world, the H2R blows through the 200-mph mark with unprecedented ease and leaves even hardy horsepower fanatics shaking their heads. It is, without doubt, the reincarnation of the original "Widow Maker" and is fully deserving of that famous moniker.

2015 BEST NEW TECHNOLOGY

## DUCATI DVT



### The Best of Both Worlds

Engine technology has largely been focused on the electronics lately. Building high-strung motors that would be impossible to ride without a computer in the loop has underpinned the current horsepower competition. But there's only so much careful manipulation of throttle and ignition can do.

The next great frontier is valve timing, which Ducati has tackled with DVT—Desmodromic Variable Timing—found on the new Multistrada. By individually changing the phasing of the camshafts relative to the crankshaft, Ducati's technology enables an engine tuned for smooth low-rpm running and, potentially, with a torque boost that also screams at the top of the rev range. Until now, the two were almost mutually exclusive.

A technology commonplace in cars today, variable valve timing has been used before on Kawasaki's Concours 14 but only for the intake valves and with limited range. Ducati's system works on both the intakes and exhausts and can change the overlap interval from a negative 37 degrees to 53 degrees. Ducati's previous high-performance Testastretta had 41 degrees of overlap, while the follow-on versions found in the Multi had just 11 degrees, benefiting low-rpm power. Now the new Multi has both the potential for big numbers at the top of the range *and* refinement down below. It's just a matter of time before this technology permeates Ducati's lineup and infiltrates other manufacturers too.



#### ALTERNATIVE TAKE // KRGT-1

Dream bike, a category rife with sporting machines, takes a detour for MOTY 2015 with the limited-production Arch Motorcycle Company KRGT-1. This quintessential V-twin cruiser is wrapped in an armor of high-grade aluminum and steel milled to perfection. No paint, no plastic, just pure metal artistry. With a price tag that puts its grips well out of reach of the average rider, it's the stuff that dreams are made of.



#### ALTERNATIVE TAKE // IMU

It's been suggested that the smartphone in your pocket has more computing power than all the Apollo missions combined. Miniaturization and mass production have made solid-state sensors commonplace, including on our motorcycles. The Inertial Measurement Unit is, quite simply, a box that tells the bike's brain what the bike's body is doing, which makes traction control, ABS, and adaptive suspension simply work better.



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# TRADING PUNCHES

## BMW & Ducati, Swingin' Fists

WORDS: Marc Cook / PHOTOS: Kevin Wing

Not every fight breaks out in an instant. Some of the best begin innocently enough and then slowly reach a point of spontaneous combustion, where aggressions escalate and no one stops until there's just one left standing. Bloodied, perhaps, but still on his feet.

So here we are, watching BMW and Ducati glare at each other and trade punches with exceptional new product. BMW currently has the upper hand in supersports with the mind-blowing S1000RR and fairly pummels Monsters with the S1000R, but Germany has no answer to the phenomenally popular Ducati Scrambler. Yet. Nor had BMW a true response to the incredibly strong-selling Multistrada. As flexible and all-around good as the R1200GS is, it won't prevail over the Multi when you emphasize sporting performance. Ducati seemed to be standing there, alone in the class, fists clenched, waiting for someone to step up and say something provocative.

It didn't have to wait long, now that the BMW S1000XR is here. Let's strip away the artifice of "adventure" styling and "adventure" capabilities, okay? It's long past time to call these machines what they are: tall sportbikes with rational riding positions and considerable touring capabilities. Or slimmed-down sport-tourers with the heart of a superbike. Look past the beaks and serrated footpegs and tires with tread patterns that imply at least a little off-road capability. That's for show.

Especially here. And now. Ducati's latest Multistrada has become the firm's technology leader, debuting DVT (Desmodromic Variable Timing). With variable valve timing on both intakes and exhausts, Ducati has given the refined Testastretta engine the potential for improved top-end power, greater midrange, and smoother behavior at the bottom of the rev range. Where the superbike-spec Testastretta had a substantial 41 degrees of valve overlap, and the retuned-for-torque version in the previous Multi had just 11 degrees, the DVT bike's variability runs from negative 37 degrees to as much as 53 degrees. In theory, the DVT engine can be milder than the Testastretta 11° when needed and hotter than the old 1198 when that's called for.

In other ways, the 2015 Multistrada is a way for Ducati to flex its technological might. An "EVO" version of Skyhook, Ducati's semi-active suspension, arrives this year, along with an IMU (Inertial Measurement Unit) that senses chassis attitude (including lean angle) to inform the traction-control and ABS functions, as well as to tailor throttle response. As before, Skyhook shifts its damping schemes based on the ride mode chosen—Sport, Touring, Urban, or Enduro. Also new: a gorgeous TFD instrument display, completely revised (and vastly improved) switch clusters, a larger/softer saddle, and cruise control.







# MC COMPARO



4,500 and 6,500 rpm. Isn't DVT supposed to *increase* torque in this area? (Our bike had 1,500 miles showing and was running the latest software, according to our local dealer.) Oh, and the BMW? Despite claims of just 160 hp at the crank—which we'd expect to be around 135-140 hp at the rear wheel—the XR put out 151.2 hp at 10,800 rpm and 79.3 pound-feet of torque at 9,000 rpm. And except for a mild dip in the torque curve—it leaves 70 pound-feet for 65 at 5,500 rpm but comes back strong 1,000 rpm later—the power is as consistent as it is plentiful. BMW has had a few years to refine this engine, and the benefits are a thing to behold.

Hopes that the Ducati's dyno showing is a matter of performance anxiety are dashed on the first ride. We're accustomed to the Testastretta being a little fluffy at low rpm—cobbly throttle response allied to plenty of shuddering below 3,000



**BMW grabbed the instrument panel from the S1000R. We love the analog tach but are less enamored with the slightly hard-to-read mono-chrome LCD (above left). Optional hard saddlebags hold 31 liters each and incorporate a handy inner floor to keep stuff from falling onto the ground (above center). Dedicated buttons manage the suspension, ABS/TC, cruise control, and trip computer functions (above right).**

Stepping up to tangle with Ducati's up-tech'd Multistrada is a bike that one of our testers teasingly called a parts-bin special: the S1000XR. Start with the basic bones of the S1000R roadster, which itself is not too far removed from the previous-generation S1000RR, including cast-aluminum frame, potent 999cc inline-four, and about every electronic gizmo in the Bosch catalog. For the XR, BMW fitted new bodywork with a tall/narrow half fairing topped by a two-position-adjustable wind-screen shaped like Dali's shovel.

And while the chassis looks much like the S1000R's, there are a number of refinements for XR duty. Suspension travel is up, 5.9 inches front and 5.5 inches rear (versus 4.7 each end for the R), wheelbase has grown to 61 inches from 56.7, trail gains 0.7 inch to 4.6, and the rake has been kicked out to 25.5 from 24.6 degrees. How does that compare to the Multi? Well, the Ducati has 0.8 inch less wheelbase, 6.7 inches of suspension travel front and rear, 1.5 degrees less rake,

and 0.3 inch less trail. By the numbers, the Ducati should be quicker turning and generally more agile than the BMW.

The numbers on the spec sheet also suggest the Ducati is lighter, but our scales say differently: The BMW, sans bags (but including the luggage mounts that are part of the Premium package), weighs 535 pounds wet, while the Ducati is 548. Incidentally, that's a 20-pound weight gain over the last Multistrada we had, also weighed without the hard saddlebags.

A few more specs don't quite add up, for both bikes. Ducati claims the new Multi makes 160 hp at the crank, with 100.3 pound-feet of torque available at 7,500 rpm. BMW, similarly, claims 160 hp but with 83 pound-feet of torque at 9,250 rpm. Our Multistrada tester, lashed to the Dynojet 250i, put 131.3 hp to the roller at 9,600 rpm, and 81.5 pound-feet of torque at 7,700 rpm. That's about 5 hp shy of the last Multi we tested, but, more worrisome, is the big dip in the torque curve between

rpm—but the DVT is nearly perfect at the bottom of the range. Smooth, predictable, willing to be lugged at just above idle like no V-twin Ducati we can remember. Here, at least, the promise of DVT translates to real-world advantages. In fact, at the typical cruising speeds of this over-gearred machine, the engine is eerily smooth and calm. Yay, technology!

But that's where the good news ends. After an initial hit of torque the engine falls into a hole, losing 10 pound-feet of torque from 4,200 to 5,200 rpm and then rising from 60 pound-feet to 77 at 6,400 rpm. That looks steep on the chart, but it feels even more dramatic on the road, where the Multi lags, causing you to crank in more throttle. Only then does it find its voice and toss out a lot more juice over a very short period of time. In some cases, it's everything the excellent traction control can do to keep the rear tire under the bike as it hits this incline. Once into the powerband, the Testastretta is a glorious thing, with



a Fogarty-esque soundtrack, bellowing through the valve-controlled exhaust and rumbling through the airbox under your chin; it's a symphony of internal combustion that shoots you down the road like you'd been clipped into the *Carl Vinson's* catapult. But keeping it on song through a combination of fast and slow corners is a Pavarottian lot of work, complicated by fueling that's maddeningly inconsistent, even in Touring, the most intuitive ride mode. Sport is half again too sharp.

Over on the BMW, the rider is wondering what happened to the Multistrada pilot's skills. We begin with preternaturally low-effort and accurate steering, a contradiction of the specs, that makes the BMW uncommonly light on its feet. It arcs in with less trouble than the Ducati, has more cornering clearance, has less steering reaction while trail braking, and generally just feels like a tall version of the S1000R, which is heady praise from this quarter. That wide handlebar is not only comfortable to sit behind but offers amplified feedback from the front tire. Confidence swells with

kills it up top with a combination of perfect throttle response (even in Dynamic Pro, the most aggressive ride mode of the four), a superb up-and-down quickshifter, and a soundtrack that's part World Superbike and part Formula 1 car. Keeping the XR in the powerband is no effort and rewards you with superbike-like acceleration.

At the dragstrip, the smaller-displacement XR flayed the Multistrada, running 10.95 seconds at 129.4 mph against the Ducati's best of 11.48 seconds at 123 mph. Not only was the BMW far, far easier to launch because of a progressive clutch and perfect fueling, giving it the edge off the line, but its shorter gearing and hole-less torque curve allowed it to annihilate the Ducati's top-gear roll-on times, posting a 2.8-second run from 60 to 80 mph compared to the Multi's 4.2. (A Multistrada 1200 we tested in 2010 did it in 3.3 seconds.)

What's up with the Ducati? Staffer Aaron Frank first rode the new Multi in the Canary Islands this spring and praised it highly, finding none of the powerband issues of our US-spec bike. We hear actual Multistrada owners complain about the

same power issues and a few more, so we're certain our tester is not the anomaly.

Just as we went to press, Ducati offered an explanation. Apparently, there is some compatibility issue with the Multi's knock sensor and American fuel. (We're naturally surprised to learn that the bike wasn't thoroughly tested on our gas.) Updated programming is on the way, so says Ducati, that will make bikes in the US run like those in Europe. Our testbike won't go anywhere until we've tried the updated maps and can see for ourselves.

Unfortunately, the power-delivery issues are in danger of overshadowing how good the Multistrada is otherwise. For starters, the new EVO Skyhook is marvelous, able to be firm and sporty like the previous version but with newfound suppleness that makes highway travel a revelation. The ability to fine-tune suspension reactions within each ride mode is brilliant, allowing you to create one very firm sporty mode and another very soft touring mode, accessible at the press of a button. Even on the fly.

Along with the slightly larger fairing,

**Ducati's gorgeous color TFT display packs a lot of information into a totally functional package, plus you can configure the display four ways (below left). Dramatically improved hard luggage, built by Givi, is part of the Touring package; combined, the bags hold 58 liters (below center). Huzzah! The Multi debuts much more intuitive switches and a dedicated rocker for the new cruise control (below right).**



every corner. From the saddle, the BMW feels more stiffly sprung than the Ducati, but the newest version of Dynamic ESA combines uncommonly good small-bump compliance with enough starch to keep the XR level and predictable. Strong brakes, perhaps not quite as full of feeling as the Ducati's similar Brembos, combine with lean-angle-aided ABS and truly fantastic traction control—especially in the Dynamic Pro mode, which has liberally raised thresholds—to make the XR a formidable back-road fighter. On most public roads, at speeds that would at least keep you out of jail, the XR is easily a match for the committed S1000RR. Really.

While it does make the best time above 7,000 rpm, the XR's engine isn't exactly weak in the bottom half, and positively



# MC COMPARO

continuation of already excellent aerodynamics, a genuinely good saddle, and the engine's aforementioned low-rpm smoothness, the DVT Multistrada is a dramatically improved long-distance traveler. Ducati equals or betters the BMW in terms of suspension goodness and rider comfort. We like the Multi's riding position—the bar is slightly lower than the XR's, which feels better to us, and you have more legroom—and the proximity of the five-way-adjustable windscreen to the pilot tends to make the cockpit less turbulent than the BMW's. These are not massive differences, but the Ducati picks up small wins along the way that suggest its designers have really begun to understand the Multistrada buyer.

In one way, the XR is not as refined: It has an annoying vibration through the handgrips centered on 5,000 rpm, or 70 mph in sixth. Vibes are well controlled at lower rpm, and the XR smooths out again by 6,000 rpm. "Annoying" understates these bar shivers, which we're amazed BMW let through R&D. Small isolators between the bar clamps and the upper triple say the engineers tried, but they stopped too soon. After all, the S1000R, with a shorter, narrower bar, has none of this vibration. Makes you wonder.

Both bikes have heated grips and accurate, intuitive cruise controls. BMW's luggage is terrific, as expected, and the Ducati's Givi-built, single-lever bags are a massive improvement over the fussy triple-latch vessels from last year. Ducati wins the instrument-panel award with a glorious, easy-to-read color TFT that makes the BMW's monochrome LCD seem so 2007. The Ducati for a number of reasons—including a much more accommodating seat than the BMW's plank—is the better, calmer highway machine.

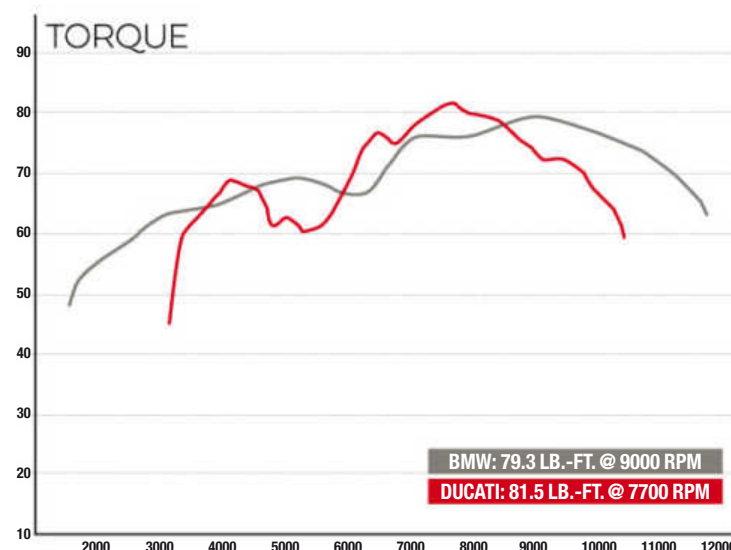
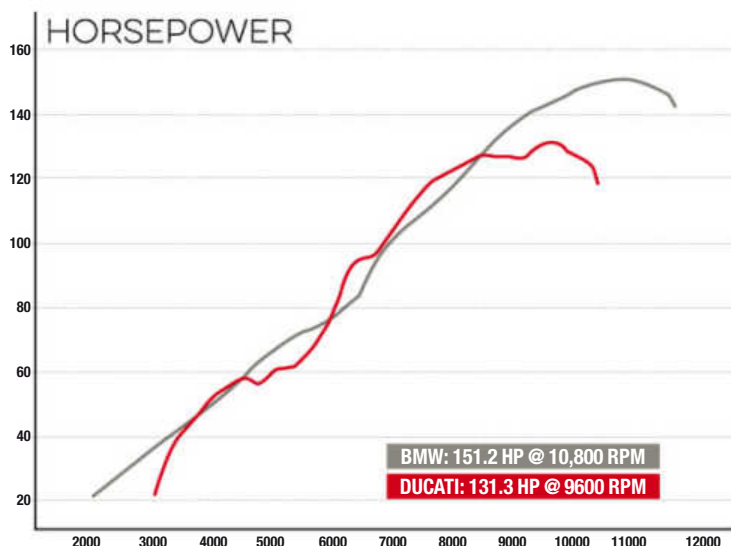
So this is a fight we thought would end just short of mutually assured destruction. A healthy Ducati might have made it so, but given the its teething issues, the BMW delivers a fast, decisive knockout punch. And a pummeling that continues to the showroom floor, where the Multistrada S Touring package (including the bags and heated grips) rings in at \$21,094. Our BMW S1000XR tester, with every option on top of the Premium package, starts at \$18,750—just add \$1,040 for the side cases.

Eventually, we hope, Ducati will finish the job, extract the potential benefits of variable valve timing, and make the Multi magnificent. When it does so, the BMW S1000XR will truly have a skirmish on its hands. But it doesn't. Not yet.

TECH SPEC	BMW S1000XR	DUCATI MULTISTRADA 1200 S
PRICE	\$19,790 (as tested)	\$21,094 (as tested)
ENGINE	999cc, liquid-cooled inline-four	1198cc, liquid-cooled 90° V-twin
BORE X STROKE	80.0 x 49.7mm	106.0 x 67.9mm
COMPRESSION	12.0:1	12.5:1
VALVE TRAIN	DOHC, 16v	DOHC, 8v
FUELING	EFI, ride by wire	EFI, ride by wire
CLUTCH	Wet, multi-plate slipper	Wet, multi-plate slipper
TRANS/FINAL DRIVE	6-speed/chain	6-speed/chain
FRAME	Aluminum twin-spar	Tubular-steel trellis
FRONT SUSPENSION	Sachs 46mm fork with dynamic compression and rebound damping; 5.9-in. travel	Sachs 48mm fork adjustable for spring preload with dynamic compression and rebound damping; 6.7-in. travel
REAR SUSPENSION	Marzocchi shock adjustable for spring preload and rebound damping; 5.5-in. travel	Sachs shock adjustable for spring preload with dynamic compression and rebound damping; 6.7-in. travel
FRONT BRAKE	Brembo four-piston calipers, 320mm discs with ABS	Brembo four-piston calipers, 320mm discs with ABS
REAR BRAKE	Brembo two-piston caliper, 265mm disc with ABS	Brembo two-piston caliper, 265mm disc with ABS
FRONT TIRE	120/70-ZR17 Bridgestone T30	120/70-ZR17 Pirelli Scorpion Trail
REAR TIRE	190/55-ZR17 Bridgestone T30	190/55-ZR17 Pirelli Scorpion Trail
RAKE/TRAIL	25.5°/4.6 in.	24.0°/4.3 in.
SEAT HEIGHT	33.1 in.	32.5/33.3 in.
WHEELBASE	61.0 in.	60.2 in.
MEASURED WEIGHT	535/504 lb. (tank full/empty)	548/516 lb. (tank full/empty)
FUEL CAPACITY	5.3 gal.	5.3 gal.
FUEL ECONOMY	46/33/39 mpg (high/low/average)	44/34/40 mpg (high/low/average)
RANGE	207 mi. (including reserve)	212 mi. (including reserve)
CORRECTED ¼-MILE	10.95 sec @ 129.4 mph	11.48 sec @ 123.0 mph
TOP-GEAR ROLL ON, 60-80 MPH	2.8 sec.	4.2 sec.
WARRANTY	36 mo., 36,000 mi.	24 mo., unlimited mi.
MORE INFO AT	<a href="http://bmwmotorcycles.com">bmwmotorcycles.com</a>	<a href="http://ducatiusa.com">ducatiusa.com</a>








Cylinder count trumps displacement in this game. Not only does the BMW own the Ducati in peak power, but it lays down a much smoother torque curve, though the Ducati's deserves something of an asterisk, as the fueling might be compromised by early calibration glitches.

## OFF THE RECORD



**ARI HENNING**  
 ROAD TEST EDITOR  
 AGE: 30  
 HEIGHT: 5'10"  
 WEIGHT: 175 lb.  
 INSEAM: 33 in.

If you think sportbikes are uncomfortable and impractical but crave a superbike's speed and handling, these are the bikes for you. The XR and Multi wrap relaxed ergos, decent wind protection, and other amenities around the hearts of true athletes, and the resulting packages are nothing short of fantastic.

Of the two, the XR is the stronger performer—more power, less weight, and a lower price tag—and it's also a lot easier to ride. From the strong low-end power and perfect fueling to the quick and neutral steering and self-adjusting suspension, it's a perfect companion for any type of on-road riding you might want to do. True, that buzz in the bars is annoying, but as far as I can tell it's the XR's only flaw.

The Multi on the other hand has a handful of quirks that make it a lot less intuitive and enjoyable to ride. I had high hopes for DVT, but they're not realized in the Multi. Not yet, anyway.



**ZACK COURTS**  
 ASSOCIATE EDITOR  
 AGE: 31  
 HEIGHT: 6'2"  
 WEIGHT: 185 lb.  
 INSEAM: 34 in.

My advice is wait for version 1.2 of Ducati's new Multistrada. It's so freakin' close! The dash, switch clusters, and saddlebags have all been improved immensely and are a treat to use. When it comes to aerodynamics, ergonomics, and handling, the Multi has always been a standout in my mind. The hitch in the Ducati's giddy-up comes somewhere between the right grip and the crankshaft;

to me it feels like ABS, TC, and lean-angle data are all trying to cram into the ECU at the same time like stooges through a doorway, and the result is an incapacitating stumble from the Multi. Or maybe it's the DVT or the ride by wire?

Point is, if you're buying one of these bikes tomorrow, it's got to be the BMW. I've been excited about BMW's S1000XR since it was announced, and it still surprised me; it's so rowdy! Vicious brakes and a dazzling chassis are topped with a superbike howl and good touring manners. The vibration in the handlebar at freeway speeds is a problem, but other than that it's a near-perfect machine.

BMW S1000XR



DUCATI MULTISTRADA 1200 S



Gerhard, meet your Italian cousin. The rider triangle on the BMW is subtly tighter, with less legroom, more rearset footpegs, and a taller bar. Ducati's fine Italian saddle makers did a better job, even with a lower seat height. Both bikes are terrifically comfortable though.

# THE ROAD AS THERAPY

WORDS: Marc Cook / PHOTOS: Millie Cook, Martha Cook, Marc Cook



Los Angeles, CA

Flagstaff, AZ

Albuquerque, NM

Oklahoma City, OK



I'm not sure this is your typical bucket-list trip. It lacks exotic destinations, eschews exotic culinary delights, and pushes few mechanical or biological boundaries. But it was something I wanted to do for a long time: a solo trip from one end of our beautiful country to the other. And while I didn't know it at the time, the 3,400-mile journey served to unlock me from what had become an almost unconscious ritual of timing and schedules and daily demands.

It started this spring at a BMW launch in a casual conversation about the upcoming S1000XR debut. To do something different, BMW chose a venue at Muskoka Lakes, about two hours north of Toronto. "Sounds great," I told the events person. "Maybe I'll ride it home from there." She didn't immediately say no, and that kicked off a cascade of logistics that would ultimately see me

flying from Toronto to New Jersey to be near BMW's sprawling campus in Montvale. A day to get the bikes back into the US via truck—the main reason I wasn't able to just ride away from Muskoka Lakes—gave me the chance to visit friends in Rhode Island. Leaving the laptop in the hotel, I was beginning to disconnect from the daily grind.

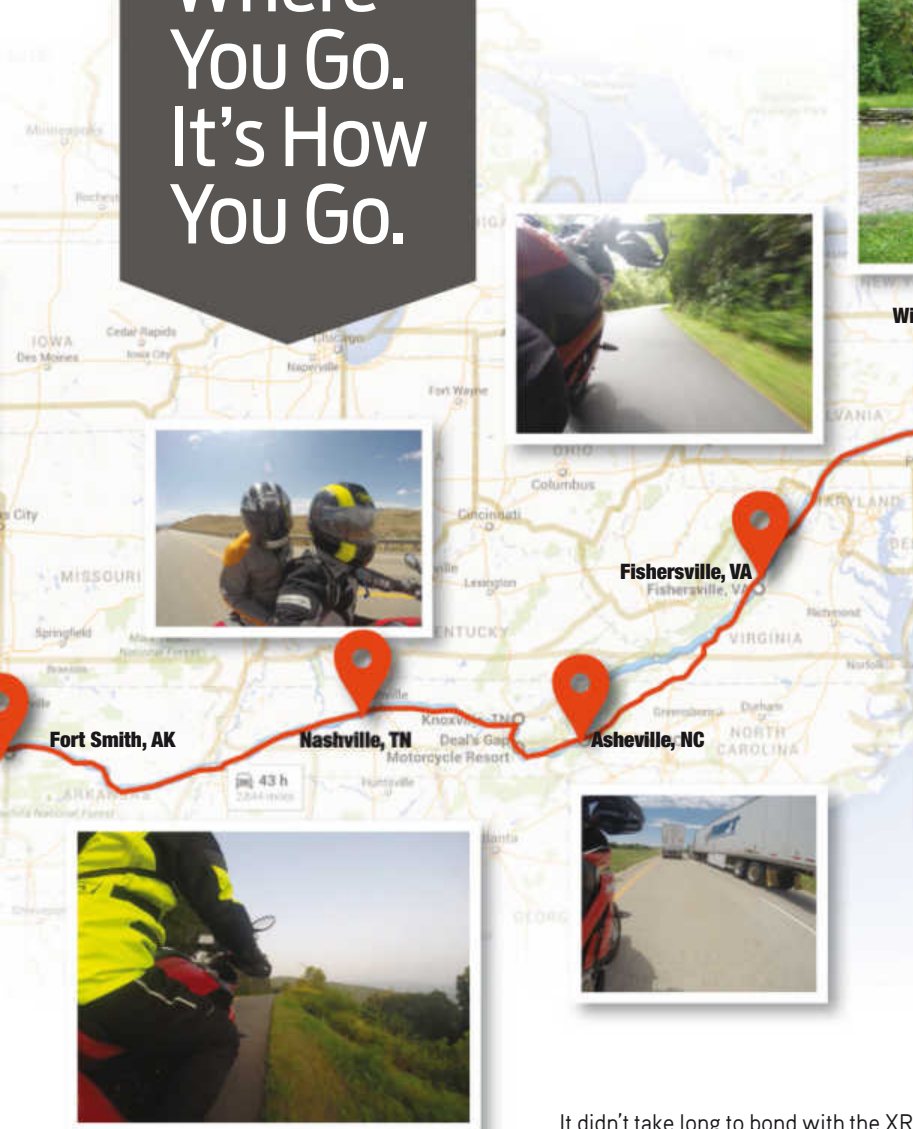
My plans were fluid. Indeed, the day before the XR was ready I'd already changed them at least once. It was the Fourth of July holiday weekend, and my daughter was back at college in western Massachusetts to start a summer internship. I cleared the calendar for the

following week and reset the few hotels I'd booked, all to extend the trip and go *the wrong way* from New Jersey to California by way of Williamsburg, Massachusetts. The ticking clock of the trip was overruled by my desire to spend time with my daughter—even if it put me days behind the original schedule and 150 miles in the opposite direction. It was the first of many good decisions this trip.

With no particular place to go, she and I knocked around, visited Historic Deerfield, and generally acted like it was summer break. Eventually, though, I had to start back. The plan, such as it was, put me on



# It's Not Where You Go. It's How You Go.



**Williamsburg, MA**



**Fishersville, VA**



**Fort Smith, AK**

**Nashville, TN**

**Asheville, NC**



a trajectory to run the famed Blue Ridge Parkway end to end in one day, followed by a sprint up The Dragon at Deals Gap, then a loop through the Ozarks that would eventually leave me at the Arkansas/Oklahoma border for a two-day blitz into Albuquerque. I was to meet my wife there and then slow the pace, taking three days to get home to Southern California.

It's 550 miles the most direct way from Williamsburg to Fishersville, Virginia, a landing spot just a few minutes from the northern end of the Blue Ridge Parkway suggested to me by one of my riding friends now living in North Carolina.

It didn't take long to bond with the XR. With a tightened version of the R1200GS's riding position and prodigious power, the XR kept me comfortable and entertained down the green Pioneer Valley, through Hartford, Connecticut, and then west and south along Interstate 84 to Fishersville for an early dinner. Only absurdly low speed limits in the northeast in general and road construction in Pennsylvania slowed me down. The BMW, for its part, whirred on, making an easy 160 miles between fuel stops, averaging 41 mpg. As I rolled through Maryland and West Virginia, I began to wonder about the thin sport saddle and began to tire of the vibration in the XR's handlebars—the vibes peak at 5,000 rpm, about 70 mph.

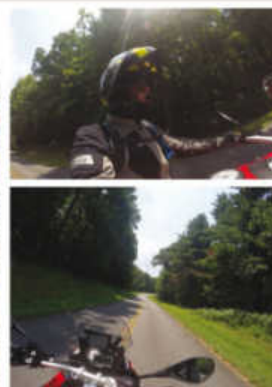
But I felt surprisingly fresh and ready for more. In time, I came to trust the Beemer's range display, which turned out to be very accurate. Cruise control, I say, is a transformative technology.

For a few moments the next morning, I questioned the need to come so far south—would it be worth the time? But almost as soon as I started down the BRP, I knew the answer. True, you can get cranky about the 45-mph speed limit in the park, and you might have heard about overzealous speed enforcement by the park rangers, but on this sunny, drying morning in early July, I had the place to myself. And it was magical.

The BRP is unique in the way it makes you feel like you're so far away from civilization, especially at the north end. You're riding a strip of well-maintained blacktop with not a single decreasing-radius turn and few guardrails, gamboling through the trees and past grassland that could have been put there for a movie. Sunlight filters through. Random drops of water fall from



**Clockwise from left: A rare chance to wick it up on the Blue Ridge Parkway, where the 45-mph speed limit usually keeps you in check; the BRP starts in Virginia and ends in North Carolina; shots from the road preceed a weather-demanded stop in Pie Town, New Mexico; Memphis, home of Elvis and the ancient Greeks.**



the leaves, remnants of last night's rain. For much of this journey, you're unaware that there are major highways and towns just out of sight. From the BRP, you convince yourself that you're hundreds of miles from civilization. Such is the delicious fiction of the Parkway.

The BRP is punctuated by a number of "gaps" that allow you to hop off and grab fuel or food. I tumbled into a small deli at Fancy Gap and treated myself to a transcendent Reuben and something called Hummingbird Cake. This fueled me to Asheville, North Carolina, which is about 390 miles along the 470-mile BRP. Here I made a fateful decision looking for fuel, jumping off the Parkway to find that an accident had badly snarled traffic on the nearest return route. I found a station, topped off the XR's 5.3-gallon tank, and consulted my GPS Navigator V for an alternate route back to the BRP. There would be quite a detour, as far as I could tell. And yet it was still early enough that I was convinced I could make it to Robbinsville, North Carolina, near the base of Highway 129, the famous Tail of the Dragon. The

idea of doing most of the BRP *and* a lap of the Dragon on the same day overtook me, so I pointed the BMW southwest.

I was relieved to see little traffic and so gave the BMW a little rope. A machine that's happy to canter along at 55 mph and also lunge forward once the tach needle sweeps past 6,000 rpm is an amazing thing. An hour before sunset, I found myself at the Deals Gap Resort for a quick rest but too enticed by the sounds of motorcycles up Highway 129 to stay put. So up the Dragon we went, the BMW finding its stride quickly with the Dynamic Pro ride mode engaged. On a tight, technical road, the XR's light steering is a blessing, especially at the end of a long day. You can place the bike anywhere you want, with pinpoint accuracy, which makes strafing the Dragon almost too easy. The hitch in my knees and knots in my shoulders from the day's ride vanished in a few minutes of concentration. And joy. Such therapy.

I hadn't decided where I was going to stay that night, so when the idea of continuing to western Knoxville to get a head start on the next day entered my

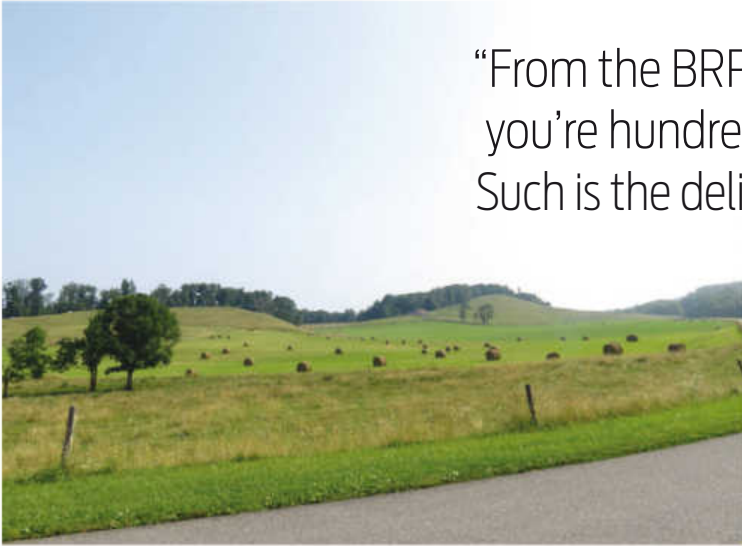
mind, I followed it. I knew that getting from eastern Tennessee to Albuquerque in two days was going to be a slog, so the chance to shorten these days was too good to pass up. I splurged on a room-service salad and a pair of local IPAs to celebrate a long, thoroughly enjoyable day in the saddle. The total: 589 miles.

Plans change and it's not always our doing. Sometimes nature has a say, which is why the next day was almost all I-40. A loop through the Ozarks starting in Russellville, Arkansas, to end near Fort Smith was programmed into the GPS, but the summer storms had other ideas. By the time I got to Russellville, it was raining hard and the weather-radar app on my phone showed nothing but red and orange along Highway 16. Reluctantly, I stayed on the interstate and made Fort Smith, with a trickle of water running down my neck and gloves soaked through. For the first time—and, as it turned out, the last—I wished for the weather coverage of a full-dress touring bike. Call it 675 miles.

Next day, more of the same, watching the land change from rolling hills and



“From the BRP, you convince yourself that you’re hundreds of miles from civilization. Such is the delicious fiction of the Parkway.”



**Clockwise from top left: Bucolic fields line the Blue Ridge Parkway; mist rises from a small lake along the BRP; storms in the desert southwest promise a bit of excitement; one of the radio telescopes at the Karl G. Jansky Very Large Array near Socorro, New Mexico.**

tall, green trees to endless prairie. Here, the BMW was less happy, at least until reaching the western states with higher speed limits. At an indicated 80 mph, the XR’s engine becomes smooth again, though I continued to rely on the superb cruise control and amused myself by sitting on the passenger seat, standing on the pegs, and even a little sidesaddle. To keep the seat low, BMW scooped out the XR’s foam and left two front-to-back ridges in the bucket, there simply to cause ass burn as far as I can tell. To be fair, the 725 miles between Fort Smith and Albuquerque would challenge most sporty bikes.

Weather continued to mock me. I’d planned a breakfast on the road at the first fuel stop but landed short in Henryetta, Oklahoma, as the rain began to fall. An \$8 cowboy’s meal—served by a waitress who called me “hon”—allowed me the strength to plow through an hour of serious rainfall that aside from poor visibility was almost an anticlimax. The XR is simply *that* composed, all the time. At the end of the day, same thing: I watched the rain shaft from a monsoonal thunderstorm edge ever

closer to I-40 as I neared Albuquerque. While the rain was heavy enough to come down the backside of my helmet visor, the BMW plowed through it, unfazed. Dinner that night at Artichoke with my wife, Martha, and a dear friend was hard earned.

I wanted three days to get back, but delays earlier in the trip caused me to consider doing it in two, 400-ish-mile chunks. Martha was game. So we departed Albuquerque southbound, turned right at Socorro, New Mexico, and headed west on Highway 60. We’d wanted to stop at the Very Large Array radio telescope and did, only to watch a line of thunderstorms loom from the south. We changed our plans yet again and headed farther west. Sedona was the goal, and we would get there via Flagstaff and I-40 rather than the “scenic” way to the south. After a stop for blueberry pie in, of course, Pie Town, we rolled through the high-desert pines, taking in the amazing scent of the desert after a rainstorm, and pushed to Flagstaff.

Our last day on the road, we headed west out of Sedona, up to the old mining town of Jerome—where the Flatiron

served me one of the best breakfast burritos ever—across to Prescott on 89A and then down to the valley on the magnificent Highway 89. Dropping down to Congress from Yarnell signified the last interesting bit of scenery until we reached home, but the drone along I-10 gave me time to reflect on the past week.

Our country is huge, much bigger than it seems from a 737. Incredibly varied. Whatever reservations I had about tackling the trip on something less than a full touring bike were without merit. Martha described passenger comfort as “fine,” excepting the footpegs vibrating nastily at the same engine speed that the handgrips went wild. Aero was excellent, the BMW’s hard luggage fantastic, and the bike’s range neatly matched my own. I have a tendency to push through, pile on the miles, but the XR’s somewhat limited range forced me to stop more often and enjoy the road as therapy. Seeing the country, escaping your own small world, and disconnecting from emails and texts for most of the day are just some good reasons for doing crazy stuff like this.

# NEW/AMERICAN MUSCLE

## Victory, America's Other-Other Cruiser Maker, is Reorganizing Around Performance in Many Forms

WORDS: Aaron Frank / PHOTOS: Barry Hathaway and Todd Williams

Talk about tilting at windmills... Beating Harley-Davidson at the American cruiser game might seem an impossible task, but that didn't stop Minnesota's Victory Motorcycles from putting up a good fight for the past 16 years. Victory's cruiser lineup is everything it needs to be—well built, high value, often better than the competition. But that's still not enough to rule the American cruiser marketplace, which also demands that X-factor of authentic heritage—something you just can't fake. Any remaining doubts were erased when Victory's parent company Polaris rebooted the Indian brand in 2013 and instantly watched Indian leapfrog Victory in terms of awareness and appeal, if not actual sales. (Polaris doesn't share sales figures.)

Where does that leave Victory Motorcycles in 2015? Rather than linger any longer in Harley-Davidson's (and now Indian's) shadow, Polaris is ambitiously attempting to rebrand Victory as a broad-based, performance-oriented manufacturer focused on developing the idea of "American Muscle," in many different forms. You might have noticed the Victory name appearing in some very unexpected places, lately—at the top of the NHRA Pro Stock Motorcycle timing sheets, for instance, on the winner's podium at the legendary Isle of Man TT, and racing to the top of Pikes Peak. Victory is not, in other words, Granddad's old cruiser company anymore.

What do you do when you don't have a 100-plus-year backstory giving shape to your brand? You write a new story, which is exactly what Victory is doing now. The person largely responsible for authoring this next chapter is Rod Krois, Victory's general manager. Krois has been at Polaris for six years, joining the firm as Victory Marketing Director before moving to Indian to organize that relaunch. When that task was completed successfully, the opportunity to return to Victory as general manager materialized. He's been in that position for a bit more than a year now, and he's been busy.

The success of Indian has opened the door for Victory to set out in a new direction, Krois says. The mission now is to establish Victory as more than just a Harley-Davidson alternative, something Krois and company plan to do by radically expanding the footprint of its brand in many new directions—including eBikes and multiple racing efforts—all unified under the common theme of flexing American Muscle.

"When I came to Victory the first time," Krois says, "we talked about performance, but we hadn't taken it to the level

of something consumers could really get excited about. Everything was very practical and rational and feature-benefit oriented. 'American Muscle' is something that consumers can really connect with on an emotional level."

It's not enough to just say American Muscle, Krois explains. It needs to be demonstrated. "What will Victory be known for?" Krois asks. "We started to list the spaces where we wanted to play. That's how the NHRA program was born. Then the opportunity to compete at the Isle of Man came up through our partnership with Brammo. And the internal interest in Pikes Peak. Once you have clarity for the brand, you see opportunities everywhere. And this focus on performance has been more clear in the last year than it's ever been in the last 16 years of the brand."

Polaris showed with Indian that it can move quickly and decisively, and it's doing that again right now with Victory. "Polaris is a really aggressive company—that's our competitive advantage," Krois says. "Steve Menetto, our vice president, likes to push the envelope and lead. If we don't lead, we're not leveraging our competitive advantage."

This aggressive nature allows Victory to seemingly go from zero to becoming a major player in any venue it enters almost instantly. In NHRA Pro Stock, the Victory Gunner dragbike of Matt Smith was top qualifier at the very first event it entered, the season-opening Gatornationals, outsprinting even the dominant Vance & Hines Harley-Davidson V-Rods. The Victory electric bike landed on the podium at the Isle of Man in its very first attempt, lapping the TT course at more than 111 mph and finishing behind only the two veteran (and Honda-affiliated) Team Mugen machines. On Pikes Peak, the Project 156 prototype was the quickest bike in the Exhibition class until a crash took it out of competition.

"Polaris has developed a competency of wanting to be on the forefront of innovation," Krois says. "We don't have a 100-year heritage to draw from, like with Indian. We're just 16 years old. We have to create new stories, which is what we're doing, and we're doing it fast. Look what we did already this year with NHRA, the TT, Pikes Peak... What



**General Manager Rod Krois is responsible for this ambitious effort to push Victory in new directions. "Now that we have a clear brand position of American Muscle and performance, expect to see more products that deliver on that."**





## HIGH ON VOLTAGE

### Entering the Electric Space is Victory's Next Big Move

Electric vehicles—usually the domain of golf duffers, mall cops, hyper-milers, and other greenie-weenies—aren't the first things that come to mind when you think performance. But staking a claim in the electric motorcycle space was a logical first step to expand the Victory footprint and underline the company's new performance-first branding, Josh Katt, product manager for Victory Electric, tells us.

"We are going to leverage electric-bike technology to over-index on performance," Katt says, explaining how electric motorcycles offer Victory an opportunity to become a major player in a burgeoning market, and also to define the upper limit of performance in that segment. The electric motorcycle market is set to boom, Katt claims. A projected 1 million electric motorcycles will be sold globally next year, he says, and growing infrastructure—including an estimated 25,000 new charging outlets—will raise awareness and reach new riders who will demand new product solutions, all of which adds up to a unique opportunity to quickly expand Victory's reach. Katt suggests that it would be fiscally irresponsible to ignore what is one of the fastest-growing segments of the two-wheeled industry.

Victory already operated an in-house electric-vehicle program, having built a utility oriented Ranger EV for five years now, but partnering with Oregon-based eBike pioneer Brammo was a quick way to leapfrog the Victory name to the top of the eBike performance charts. The two firms first partnered in 2013, when Victory became interested in electric performance. Polaris made the partnership permanent in January 2015 by purchasing all Brammo's motorcycle assets.

The first tangible result of this development is the Empulse TT, an evolution of the highly developed Brammo Empulse electric sportbike. Victory isn't aiming for



**Who would have imagined, just a few short years ago, that the next Victory motorcycle would plug in to power up?**

entry-level commuters, at least not with the \$19,999 Empulse TT. Katt illustrates the target TT customer with a photo of Tony Stark, Robert Downey Jr.'s character in the *Iron Man* franchise, describing the rider profile of an affluent, tech savvy, status seeker. This is intended to be a halo product and an alternative, innovative expression of American Muscle.

"We don't want to play in all fields," Katt says. "We want to focus on where electric technology fits into the Victory brand position. That's why we're starting with a performance-oriented electric bike."

It might seem ironic that Katt, formally trained in engine systems, is now in charge of products without engines, but he says that internal combustion experience gives him an advantage when it comes to developing eBikes that resonate with internal combustion enthusiasts. And he is equally convinced that compelling electric motorcycles will raise interest in the Victory brand on all fronts.

"We know who purchased the previous Brammo Empulse," Katt says, "as well as who would be interested in purchasing a Victory electric motorcycle. When they get their head wrapped around Victory as a performance electric brand, I think they'll even find some of our baggers and other products to be engaging too." —Aaron Frank



other brands are doing that much in just six months? That's the way we're going to run this ship—creating stories, aggressively, then following up with products that reinforce that message."

Response to this aggressive reorientation so far has been positive, Krois says. "We've done a series of town halls with dealers, sharing our new vision for the brand—the first time we've ever done that in Victory history—and for the most part dealers have loved it and asked how they could support it through the market. We've got about 800,000 Facebook fans, and their positivity has gone through the roof. People have heard of Victory, but they don't know much about it. Now, once they become familiar with the brand, they generally have a pretty good impression of it."

And we can only expect to see more exciting new developments in Victory's future, as it continues to redefine and expand its brand. "Now we have a clear brand position of American Muscle and performance," Krois says, "and we have freedom to operate within Polaris. Our pipeline is full, so you're going to see more products that deliver on that promise of performance. Anywhere we bring value in that position, we'll do that."

**"We don't have a 100-year heritage to draw from, like with Indian. We're just 16 years old. We have to create new stories and do it fast."**



**That's not quite a flux capacitor under the skin of the Empulse TT, but it's close. Victory Electric Product Manager Josh Katt (right) says performance eBikes are perfectly consistent with Victory's American Muscle brand position.**







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DESIGNED IN SILICON VALLEY, CA



[SHORAIPOWER.COM](http://SHORAIPOWER.COM)

# 2016 VICTORY EMPULSE TT

Lookout, LiveWire

## THEY SAY

"40,000 watts of modern American muscle."

## WE SAY

"Electroshock therapy for bored riders."



Harley-Davidson got lots of play out of releasing its LiveWire eBike prototype last year—reportedly the biggest story in the history of The Motor Company in terms of pure consumer reach. Without a production component, however, it was largely a story without substance. It just put a gloss of futuristic innovation on what some consider to be an anachronistic company. Many leveled the same criticism at Victory earlier this year when it entered a one-off electric racebike in the Isle of Man TT Zero, but it turns out this wasn't just greenwashing now that Victory has revealed the Empulse TT, its first production eBike.

If this bike looks familiar—you might even recognize the Empulse name—that's because it's based on the Empulse eBike sold by Oregon manufacturer Brammo before Polaris acquired all of Brammo's motorcycle assets earlier this year. Victory did make some improvements in creating the TT, however, including an upgraded

lithium-ion battery system with 10 percent more capacity, mildly restyled bodywork, a new dash, and lighter wheels.

Aside from a larger, 10.4 kWh battery capacity, the TT powertrain is unchanged from Brammo spec, with the same liquid-cooled, permanent-magnet AC induction motor and a six-speed transmission. It's the only eBike on the market equipped with a gearbox, which Victory says improves both range and acceleration, as well as making the bike more engaging for experienced motorcyclists to ride.

Because the bike hadn't been publicly announced yet we rode the Empulse TT under embargo at Colorado's High Plains Raceway, 60 miles from nowhere east of Denver, and found it—not surprisingly—very similar to the Empulse we were already familiar with. The bike fits and handles like an aggressive streetfighter (Triumph's Street Triple was Brammo's benchmark), the only departure being footrests that feel lower and farther apart to

make room for the electric motor mounted below the swingarm pivot. (Yes, the pegs drag early during aggressive cornering.)

Victory posts outputs at 54 hp and 61 pound-feet of torque and that feels about right, delivering acceptably brisk acceleration up to a 110 mph (indicated) top speed. Manipulating the notchy gearbox only provides a slight increase in acceleration compared to parking it in any upper gear. Shifting is entirely optional—you can also take advantage of the eBike ability to provide max torque at any rpm and operate it in twist-and-go mode for maximum convenience. The clutch is only necessary to change gears, not to start or stop the bike, which takes getting used to.

Dual, radial-mount Brembo brakes deliver strong, confident braking, appreciated because, at a claimed 460 pounds, the Empulse TT isn't exactly light. You notice that mass on the race-track, where the bike tends to fall into corners and overwhelm the adjustable





## EVOLUTION

Victory's version of Brammo's Empulse, with a bigger battery and other changes.

## RIVALS

Energica Ego, Lightning LS-218, Zero S and SR

(but undersprung) 43mm inverted fork, inspiring some reluctant steering under hard braking. Handling seems better at non-racetrack speeds, staying light and acceptably neutral around the paddock.

The racetrack is not necessarily the best context to assess range and any improvements thereof either. Fifteen-minute track sessions in the more aggressive (of two available) power mode consumed almost 50 percent of the battery charge, so even if the range is improved with the new battery it's likely not significantly improved over what we know from past Brammo experience, which was about 75 miles in mixed urban/highway use. (Victory claims "up to 140 miles of

range per charge," presumably under extremely conservative operation.) There is a regenerative charging feature, but during later sessions on an 80-degree day test units occasionally displayed a "REGEN OFF, BATTERY HOT" message. The 3.6 kW on-board charger can completely replenish the battery in three and a half hours using a Level 2 supply, but it takes eight hours with a (household) Level 1 power supply.

Even if the Empulse TT doesn't break any new technological ground compared to the old Brammo bike, it still offers impressive performance—though it's certainly not cheap at \$19,999. Still, this is the first electric effort we've seen backed by a major manufacturer—not a start-up—with the financial and engineering strength that Polaris brings to the table. This is just the beginning of eBike development for Victory, and it already puts Harley-Davidson—and every other major OEM, for that matter—in the position of playing catch-up.

## TECH SPEC

PRICE	\$19,999
ENGINE	Permanent-magnet AC
TRANS/FINAL DRIVE	6-speed/chain
CLAIMED POWER	54.0 hp @ 1 rpm
CLAIMED TORQUE	61.0 lb.-ft. @ 1 rpm
FRAME	Aluminum twin-spar
FRONT SUSPENSION	Marzocchi 43mm fork
REAR SUSPENSION	Sachs shock
FRONT BRAKE	Dual Brembo four-piston calipers
REAR BRAKE	Brembo two-piston caliper
RAKE/TRAIL	24.0°/3.8 in.
SEAT HEIGHT	31.5 in.
WHEELBASE	58.0 in.
BATTERY CAPACITY	10.4 kWh
CLAIMED WEIGHT	460 lb. dry
AVAILABLE	Fall 2015
MORE INFO AT	<a href="http://victorymotorcycles.com">victorymotorcycles.com</a>

## VERDICT

The apex of eBike performance, but still very expensive and range-limited.

## ELECTRIC MUSCLE

### Riding Victory's Isle of Man TT Racebike

"I was proper impressed by what the racebike did," Victory racer and Isle of Man TT regular Lee Johnston told us during the Empulse TT launch, which he attended as a guest. "I remember my first ride over the mountain course, cruising along at such speed, with no noise whatsoever—it's unbelievable."

"Such speed" translates from Johnston's thick Belfast accent to a 111.62-mph lap and a lightning-fast 144.34-mph blitz through the Sulby Speed trap on his way to third place in this year's TT Zero. Victory gave us a quick taste of the TT Racer's magic-carpet ride, and we walked away equally impressed and immediately surprised by how fast the racer was, easily achieving the advertised 145 mph top speed on High Plains' front straight. Unlike the Empulse TT streetbike, the racer doesn't use a gearbox—you just pin the throttle and enjoy a seamless, silent (except for the chain and tire noise) rush to top speed.

"I had to retrain myself on the TT course," Johnston says. "There are so many spots where you use rpm and gearing rather than actual braking markers, so that was a major challenge." On the more predictable and consistent confines of a 15-turn closed circuit, however, this lack of distraction quickly becomes an advantage. With no gearbox to manage and no worry about rpm—the electric motor delivers impressive torque whenever you twist the throttle, no matter how fast or slow the motor is turning—it feels like you have 50 percent more attention to devote to braking, turning, and body position. It's liberating.

And cornering is a joy on the legitimately fine-handling racer. "Over rough sections of the TT course this bike didn't even move," Johnston says. The location of the motor, with the rotor actually located behind the swingarm pivot, creates an anti-squat effect and the smooth, strong power delivery only enhances your sense of confidence and control.

Now, if only Victory could bring a bike with this level of performance to market, we'd all be lining up for electric sportbikes!

—Aaron Frank



This is the development mule for the Empulse TT—the Brammo-built prototype racer that placed third at this year's Isle of Man TT Zero.



# Sunday Stories

Malcolm Smith Tells Behind-the-Scenes Tales from his *On Any Sunday* Movie Experience

WORDS: Mitch Boehm / PHOTOS: Malcolm Smith/Bruce Brown archive, Glenn Miller



*On Any Sunday*. It's been described as the "most exciting film ever made" on motorcycling. Actual movie critics called it "masterful" and packed with "thrills that can't be described." Most motorcyclists would agree with those assessments of Bruce Brown's epic 1971 documentary, which, amazingly, turns 45 in July 2016.

But there are plenty of things folks *don't* know about the movie and the part Malcolm Smith played—or almost *didn't* play—in it. As editor of Malcolm's new book *Malcolm! The Autobiography*, I'm fortunate to have heard a bunch of these behind-the-scenes tales. And because

Malcolm's 400-page coffee-table tome will be available by early September (see [themalcolmbook.com](http://themalcolmbook.com)), Editor Cook and I figured it would be a fine time to relate a few of them.

A key one, I think, is the fact that Malcolm came very close to not being in the movie at all. "It's true," Malcolm says with his trademark grin. "Bruce, who was a customer of mine, came in one day and said, 'Malcolm, I'm just starting on a motorcycle documentary similar to *The Endless Summer*. Interested in being in it?'"

"Well, of course I was interested. The only problem was my new job as the very green owner of K&N Motorcycles, which

I'd just purchased from Kenny Johnson and Norm McDonald—who'd go on to build the K&N empire. I was struggling with management headaches and feeling overwhelmed, so I had to tell Bruce no. Too stressed. Luckily, Bruce came back a week or two later and asked again. And because I'd gotten things somewhat under control at the shop, I told him I was in. It was one of the better decisions I've made in my life!" Indeed.

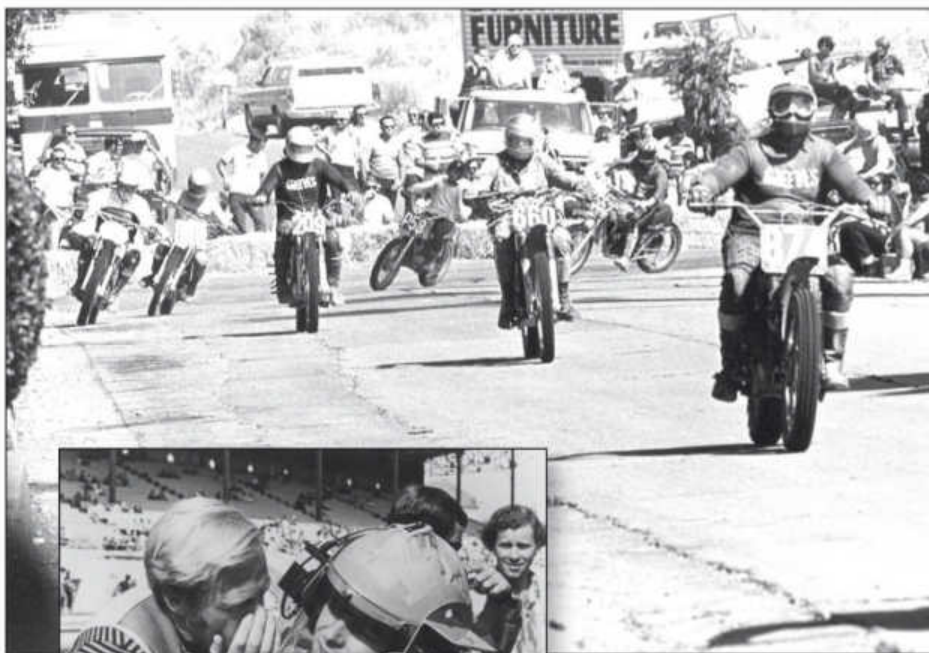




Malcolm Smith (left, in the photo above), Steve McQueen (middle), and Mert Lawwill goofing off on director Bruce Brown's SoCal ranch during the movie's final days of shooting. Check out Mert's "Harley-Davidson" dirt bike! (It's actually a Greeves, above.) The Elsinore Grand Prix (right) was a crazy race with a truly outlaw feel, which is why its type is now gone for good. Sadly.







**On Any Sunday** director Bruce Brown built a couple of helmet-cams for the movie, and they produced some highly dramatic footage, especially on the dirt tracks (left).



Malcolm was happy to hear that Steve McQueen, also a customer, would be involved. "I liked Steve," Malcolm says. "He was a real motorcyclist, not a poseur. Like me, Steve grew up without much money and was every bit as frugal. He'd make me show him the parts I'd replace on his Huskys!"

Malcolm was excited about the movie but had no clue it would add up to anything more than some fun riding and traveling. "My life at the time was too full of business, my two young children, Luci and Joel, and racing for me to realize the possibilities. It was just another fun project."

One of the first events Bruce filmed was the Elsinore Grand Prix. "There'd been a lot of rain leading up to the race," Malcolm remembers, "and I noticed that a section of dirt road had a large puddle in the middle. The first riders—me included—got through the puddle without much trouble, but a lot of the pack got bogged down in axle-deep mud." The hole would become a topic of great controversy in the outcome of the race.

"I got a great start and was soon leading, and as I approached the mud hole on lap two, I could see quite a few stuck and abandoned motorcycles. I

skirted the edge next to the fence where the dirt was firmer, but still slick and muddy, and I had a moment as I ripped through there pinned in second gear, at times using the wheels of fallen motorcycles for traction. But I made it through. I remember seeing officials cutting the barbed wire as I did so, presumably to route riders around the hole onto dry ground for the race's later laps. For many competitors the mud hole was the end of their race. Everyone was muddy, the goo obscuring many number plates, including mine, which caused scorers to miss many of the numbers, which added fuel to the brewing scoring controversy.

"When Bruce edited the film," Malcolm says, "he showed me going through the barbed wire and around the mud on dry ground, which gave the impression that I'd cut the course. Of course, by that time, the course *had* been officially rerouted outside the fence, and what was shown in the movie was actually my third lap, not my second. A close look at that footage shows the mud hole basically empty (which it was *not* on my second lap), and which it was on the third lap after most of the bikes had been pulled from the bog.

"Anyway, the race results showed me six minutes ahead of second-place

Gary Bailey in total time, but missing a lap, therefore removing me from the top finishers. And despite a consensus by all involved that I had won by a wide margin, they never changed their official position. Bruce, of course, got it right in the movie! I wasn't too worried, actually. Everyone knew I'd won, and I'd had a good time right until I hit a woman crossing the road the following day on a 360 Husky going about 75 mph. But that's a story you'll have to read about in the book."

Back to the movie. "One of the more memorable scenes was the poor guy stuck in the desert who tried to light a signal fire. That was Bruce's idea, and I had the perfect bike for it—a repossessed Husky with a blown engine. It burned pretty good in the scene, and most folks probably thought it was a total loss. Not true. We repainted the tank, replaced the cables, rebuilt the engine, fitted new tires and seat, and ended up selling it. It's out there somewhere!

"Shooting the ending sequences was a lot of fun. The scenes themselves—riding with your friends, cow trailing, beach riding, sliding around, goofing off—really did capture the essence of the fun of motorcycling, and Bruce did





**The footage from the wacky and action-packed Elsinore Grand Prix is a highlight in *On Any Sunday*. A scoring controversy and a nasty crash the day after Malcolm's 250-class win made it less special for him.**



a masterful job recording it for eternity. Steve was very competitive and always wanted to be out front, which worked well for the cow-pie bit we did. The shots of Mert flinging cow poo off his arm, of me laughing, and of Steve looking back at us with an evil grin are epic."

Malcolm and Mert got Steve back on the water-crossing scene, which Steve wasn't ready for the first time they did it. "Steve figured we'd all ride through slowly," Malcolm says, "but of course Mert and I [and Bruce] had other ideas. We blasted him good, and Bruce, with a cameraman in the bushes, got the shot. We did more versions of it, and Steve got really wet and cold. But Bruce ended up using that first take, which was easily the best of the bunch. Watch the scene closely, and just after Steve spits the water out of his mouth, he turns and you can begin to see the beginnings of a grudging smile. He knew he'd been had—and good!"

The sand dune footage was shot in Baja, Mexico, on the Cantamar sand dunes overlooking the Pacific. "Mert was

riding a Greeves," Malcolm says, "but put a Harley-Davidson badge on it to keep his sponsor happy. Bruce didn't have any fixed program; we were just ripping around, having a great time while Bruce and company filmed."

For the last day of filming, Bruce wanted unstructured riding for fun on the beach at Camp Pendleton Marine base. "Bruce called the base for permission," Malcolm remembers, "and heard this: 'Absolutely not! No way!' Steve then called the base commander, who sang a different tune: 'Okay, Mr. McQueen, anything you want.' I guess it really does matter who you are!"

"The beach riding was really fun," Malcolm says, "especially the power-sliding during low tide. Crashing on the low side wasn't too bad. But if you chopped the throttle too much you got high-sided, which hurt. Steve did it several times that afternoon. At the end of the last day we all jumped into Bruce's hot tub. Steve was a mess... What wasn't black and blue was skinned up or both!"

With a hundred hours of raw film to process, analyze, and edit, Brown spent the following 10 months crafting *On Any Sunday*. During that time, Malcolm got back to work and basically forgot about the project. "Bruce never talked about how he'd cut the film," Malcolm says, "so I honestly had no clue I'd be featured so prominently."

The film screened a couple of times in Hollywood and Westwood (UCLA) before going to national theaters. Malcolm attended the early screenings and was shocked to see how much of a role he played. "I was *really* surprised," he says now. "I had no idea. And the movie was *so good*! Bruce did such a wonderful job on it."

"Malcolm's always telling everyone that the movie made *him*," Bruce Brown says today. "But I think Malcolm helped make the movie. He was the guy with the smile, and he really resonated with moviegoers. Folks expected Steve to be good, and he was. But Malcolm was a star, too, as was Mert. What a team."

And boy, what a movie.



# GEAR

WORDS: Ari Henning

## PLUGGED IN

Electrical Accessories For Your Next Ride

### 1 MICRO-START XP-5

No need to ask for a jump when you have the Micro-Start XP-5 in your pack. This tiny jump-starter and personal power supply can push out more than 150 amps—enough to revive any bike and even six-cylinder automobiles, the company says. It's tiny and light—just 8 ounces and about the size of a smartphone—so it's easy to pack and perfect for road trips. The \$110 kit includes the XP-5 plus a carrying case with a charger, jumper clamps, and a pigtail for charging USB-powered devices.

[themicrostart.com](http://themicrostart.com)

### 2 HEALTECH QSE

Ready to experience the thrill of full-throttle clutchless upshifting? The QSE (Quick Shifter Easy) from Healtech Electronics is a stand-alone quickshifter that uses a simple strain-gauge sensor that bolts up to your bike's existing shift linkage, even if you have aftermarket rear-sets. The kit costs \$320 and comes with a bike-specific wiring harness. If you get a new bike you can just buy a new harness (\$40) and take your QSE with you.

[bluemonkeymotorsports.com](http://bluemonkeymotorsports.com)

### 3 X-PWR GOPRO CASE

Say so long to dead GoPro batteries with this new all-weather external-power case from 3BR Powersports. The \$60 X-PWR case offers sealed protection for your GoPro Hero 3 or Hero 4, while a special port and the included 18-inch B-Capped power cord allow you to plug into a continuous USB power source (wired into your bike's electrical system or directly to the battery). The cord also permits you to transfer files while the camera is still in the case.

[3brpowersports.com](http://3brpowersports.com)

### 4 H-D POWER PORT

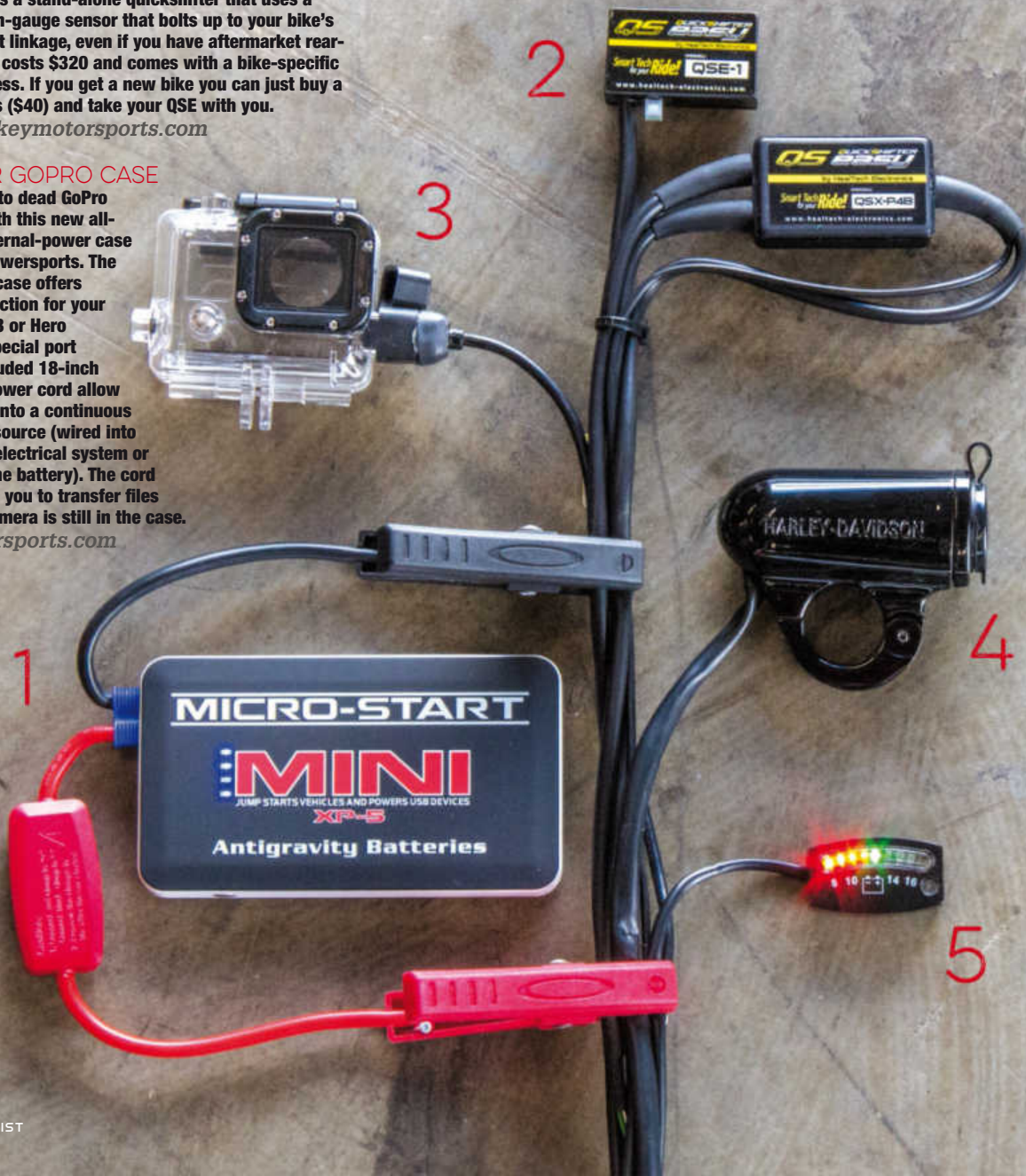
Power a GPS or other 12-volt accessory with this \$90 Harley-Davidson power port. Available in black or chrome for 7/8-, 1-, or 1-1/4-inch handlebars, this cast-metal housing puts a standard 12-volt outlet within easy reach. The power cable plugs directly into the wiring harness on most 2012-and-later H-D Touring bikes. For other models there's an optional adapter that mates to a standard SAE two-pin connector.

[harley-davidson.com](http://harley-davidson.com)

### 5 KÜRYAKYN BATTERY GAUGE

Keep tabs on your battery and charging system's health with Küryakyn's compact LED battery gauge. Green, amber, and red LEDs illuminate to indicate normal operating voltage (green), a no-charge scenario (yellow), or voltage below 10V or above 15V (red). A daylight sensor automatically adjusts LED brightness. This unit costs \$45 and measures just 2 x 3/4 x 3/16 inches so you can mount it anywhere.

[kuryakyn.com](http://kuryakyn.com)





## MAXIMA BIO2 TWO-STROKE OIL

➡ Poor fuel economy and far too much unburned gas and oil going out the exhaust caused two-strokes to fall out of favor a long time ago, but some of us still love the simplicity, the sound, and, yes, the smell of bikes that put down a power pulse every time the piston descends in the cylinder.

There's not much I can do to reduce the amount of unburned fuel in the fog that streams from the stingers on my two-stroke streetbikes, but I'm doing what I can about the toxicity of that haze by using Maxima's Bio2 two-stroke oil. Bio2 is an ester-based synthetic lubricant that Maxima says is biodegradable and "recommended for use in environmentally sensitive areas." Most of my leisure rides pass along the beach and through various coastal ecological reserves, so running Bio2 in my oil tank makes me feel just a little less guilty. It's like ordering a side salad with my bacon double cheeseburger.

Bio2 is suitable for premix or injector use and contains loads of anti-scuff additives and special ingredients meant to reduce friction and prevent carbon buildup. And thus far it seems to be doing all of that. I inspected the top end on a recently rebuilt engine after breaking it in on Bio2 and the pistons and cylinders look excellent, while there was just a little oil residue inside the exhaust headers and on the spark plugs. Bio2 is said to be clean burning but still contributes to a pretty thick cloud behind me when I ride, and while Bio2 doesn't smell as wonderful as Castor 927, it makes for a pretty pleasant aroma that any vintage-bike fan will appreciate.

—Ari Henning



➡ **MAXIMA**  
**BIO2 TWO-STROKE OIL**

**PRICE:** \$22 for a 1-liter bottle

**CONTACT:** [maximausa.com](http://maximausa.com)

**VERDICT:** 7/10

Good for your two-stroke and better for the environment, but a bit pricey and not as sweet smelling as old-school oils.

## EXPED SUMMIT LITE 25 BACKPACK

➡ When the outdoor gurus over at Exped first sent this pack I was skeptical. It's not a riding backpack, so what good is it to me? I tossed it in the top case when departing for a long weekend, and a few days later it was one of my favorite riding accessories.

The "25" in the name refers to the 25 liters of storage the pack offers, most of which is in the main compartment accessible via the generous flap that zips open at the top. A small, zippered internal pocket is perfect for glasses, sunscreen, or snacks. A spandex pouch on the outside of the pack cradles a large water bottle easily.

The Summit Lite is surprisingly comfortable, even when it's full, with nicely padded shoulder straps and auxiliary bands that buckle around your chest and hips to keep the pack in place. It's made of 100-denier ripstop nylon, which Exped says is "water repellent," so don't expect your stuff to stay dry if you drop it in a puddle.

It is, however, amazingly light—just less than 10 ounces. The Summit Lite's best trick is stuffing into itself and zipping shut, taking up about as much room as a pair of gloves in your luggage or in the internal pocket of your jacket. When you get where you're going it's spacious enough to carry a bundle of your gear or snacks and water, whether you're hiking from your campground at a national park or wandering around a racetrack to spectate.

—Zack Courts



➡ **EXPED**  
**SUMMIT LITE 25 BACKPACK**

**PRICE:** \$49

**CONTACT:** [exped.com](http://exped.com)

**VERDICT:** 8/10

A little pricey but a superb travel companion.



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**June 26 - 28**

Miller Motorsports Park

**July 17 - 19**

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**August 7 - 9**

Indianapolis Motor Speedway

**September 11 - 13**

New Jersey Motorsports Park

\* Schedule Subject to Change

## GET TICKETS ONLINE AT [MOTOAMERICA.COM](http://MOTOAMERICA.COM)







## TWO FOR THE ROAD

If one is the loneliest number and three's a crowd, could the perfect complement of riding partners be two? Consider the benefits: You have company when you want it and a fellow rider to back you up should something go wrong (and vice versa). Two riders are much less obvious to tourists and law enforcement than, say, five or a dozen. Your rest stops can be short and well synchronized. Just remember to share the lead, take lots of pictures, and enjoy the ride.

MILES THIS MONTH

3 6 8 1

A more acceptable number, now that there are two new machines added to our long-term fleet.

KEVIN WING

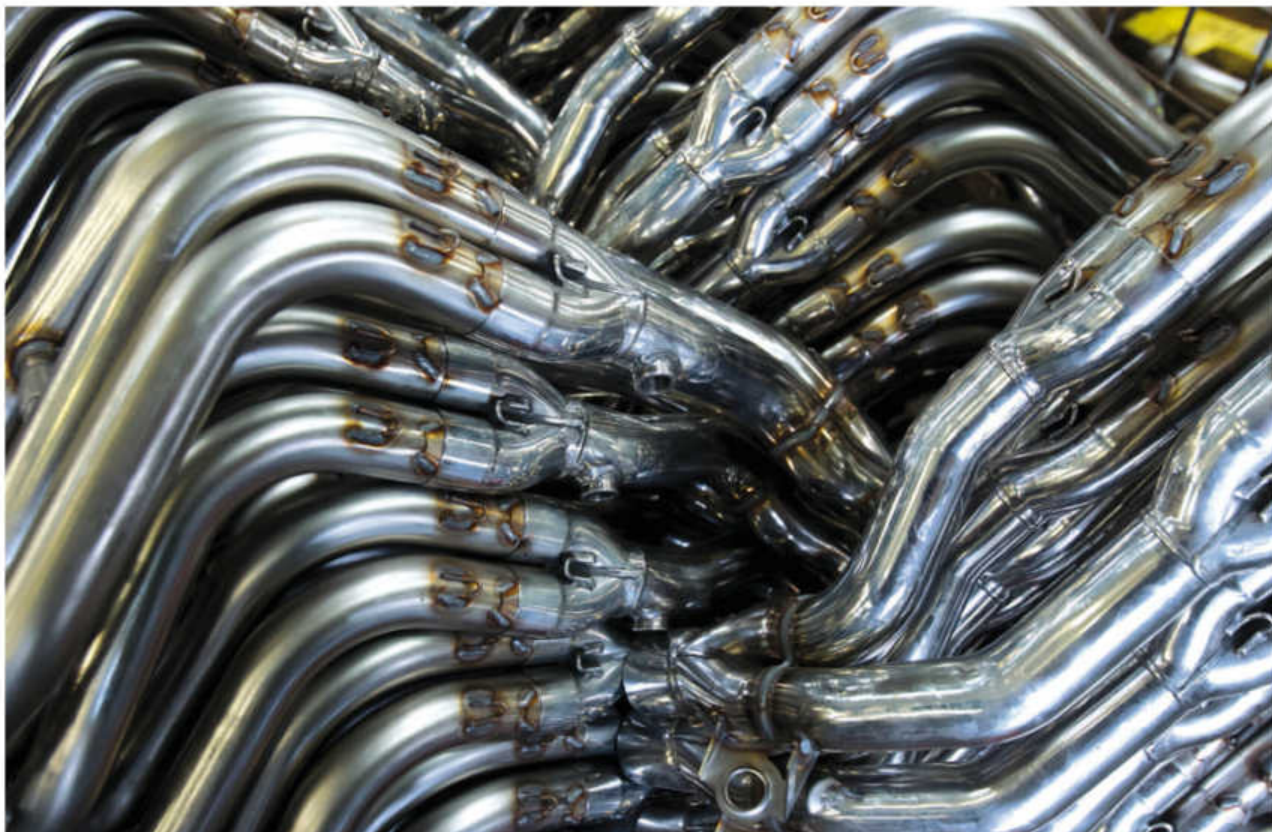
## DECODER RING

### CROSSPLANE = An Unusual Crankshaft

One of the signature technologies of Yamaha's Motorcycle of the Year-winning YZF-R1 has been its so-called "crossplane" crankshaft. In short, this design spaces the connecting rod big ends of cylinders 1 and 2 (and 3 and 4) 90 degrees from each other. Normal four-cylinder engines have these pairs clocked 180 degrees apart. Yamaha's design enables an uneven firing order that softens power pulses in order to improve rear-wheel traction. Plus it sounds great.








YOSHIMURA R&D

## Exhaust Systems Explained

### It's So Much More Than a Pretty Pipe!

 In the early days of internal combustion, an engine's exhaust system was little more than a pipe put in place to route hot, noxious fumes away from the site of ignition. It wasn't long, however, until engineers discovered that the pipe's length and diameter affected the engine's power and efficiency, and from that point forward exhaust plumbing became an important factor in the overall design of the powertrain.

The exhausts on today's high-performance bikes are finely tuned and surprisingly complex assemblies, appropriately referred to as exhaust "systems." They are not designed as an afterthought and in fact represent "one of the more expensive and involved parts of the drivetrain to develop," says BMW's Head of Drivetrain Development, Uli Blüemelhuber. From the header pipes on back to the muffler opening, every component is carefully selected to fulfill a specific purpose, whether it's noise or emissions compliance or the manipulation and harnessing of pressure waves traveling at the speed of sound.

Take a look at any modern exhaust system and you'll see header pipes that snake down under the engine and convene at a collector. This collector can vary greatly in size, with the recent trend favoring a larger box-like contraption (often containing the catalytic convertor and primary baffling for sound suppression) under the engine that permits the use of a smaller, lighter muffler on the bike's flank. Beyond the collector there may be a servo-controlled butterfly valve, and somewhere along the line—typically just upstream from the collector but sometimes near the exhaust port—there will be one or more lambda (oxygen) sensors. Occasionally you will see cross-over pipes linking adjacent headers.

There are two parts to the exhaust event: the evacuation of slow-moving exhaust gasses and the escape of pressure (sound) waves moving at up to 1,700 feet per second. The exhaust gases travel down and out the pipe, but as the pressure pulse moves through the exhaust plumbing it encounters various design features that influence its behavior in

very interesting ways. A change in pipe diameter will affect its velocity, and it will also reflect part of the wave back toward the exhaust port, like ripples in a pool ricocheting off a wall. Not only that, depending on the change in the pipe's cross section, the wave's sense may reverse from a compressive (positive) force to an expansive (negative) force.



**The exhaust valve in the latest Yamaha YZF-R1 not only regulates back pressure, but it actually reroutes exhaust flow based on engine speed and load. The low-speed routing shown here is longer and uses narrower tubing for better midrange performance.**



“The exhausts on today’s high-performance bikes are surprisingly complex and appropriately referred to as exhaust ‘systems.’”

If timed right, this negative pressure wave will arrive back at the exhaust port and help scavenge the cylinder of residual exhaust gasses as well as help draw fresh fuel charge into the cylinder, improving power and fuel efficiency. Two-stroke expansion chambers are an example of this tuning technology taken to the extreme.

As if all that weren’t complicated enough, engine rpm (among numerous other factors) influences the timing and strength of these crucial pressure pulses, restricting a pipe’s optimal tune to a certain engine speed. Similar to the way electronically controlled throttle plates are used to meter intake-air velocity to match engine speed, a butterfly valve in the exhaust system “reduces or increases flow to make effective use of the pressure waves,” explains Yamaha’s Media Relations Manager Marcus DeMichele. This dynamic manipulation of exhaust pressure helps flatten the engine’s torque curve and in some cases “may also be used to alter sound at a certain rpm to meet government sound regulations,” says Sales Manager Jeff Wells at SuperTrapp Industries. Think the valve is there solely to make the sound-testers happy? Think again. The technology is currently in use on Aprilia’s new RS-GP MotoGP racer and has been employed by other teams as well.

Besides enhancing the performance of the engine, the exhaust system must also reduce sound to an acceptable level and scrub hazardous compounds from the exhaust gas, all while satisfying the marketing team’s aesthetic desires, the accountants’ cost demands, and meeting the packaging requirements imposed by the bike. It’s no easy task and represents a huge balancing act and myriad compromises.

And yet, “It’s very hard for an aftermarket exhaust manufacturer to produce something that is better over a broader range than many of the stock systems on today’s bikes,” Wells says. That’s not to say a well-developed aftermarket pipe won’t improve power or offer other benefits (see the “Why Buy Aftermarket?” sidebar), but it does go to show that most manufacturers do their homework and equip their machines with the best exhaust setups possible.

—Ari Henning



YOSHIMURA R&D

## WHY BUY AFTERMARKET?

Twenty years ago you could gain big power by dumping your bike’s stock exhaust and bolting up an aftermarket system. OE pipes weren’t as well developed as they are today, leaving the door open for companies like Yoshimura R&D to build really bitchin’ systems.

Nowadays, as we’ve shown, things are different. “Modern exhausts systems are extremely good,” says Yoshimura R&D Technical Sales Manager Tim Welch. If that’s the case, why buy an aftermarket exhaust?

Power gains are still a possibility, but it’s no longer the principal attraction. Weight savings, a more appealing appearance, and better sound are the three primary reasons most consumers buy a pipe for their bike.

Since the vast majority of aftermarket pipes are for “closed-course use only” (Yoshimura’s CARB/EPA-compliant Signature Series is a notable exception), they do without a heavy and restrictive catalytic converter, thereby saving serious weight. Fancy finishes like carbon fiber and titanium are rarely available from the factory but readily available in the aftermarket, and the deeper, louder tone emitted by a non-compliant exhaust is appealing to some.

## PECULIAR PLUMBING

Tube length and diameter are critical factors in exhaust design. As a general rule, if you’re tuning for low-end torque, you want longer tubes of a smaller diameter, while an exhaust tuned for peak power will have shorter, larger-diameter piping. Equal pipe length on all cylinders is almost always desired, which is why circuitous routing is often employed on the rear cylinder(s) of V-layout engines, such as Ducati’s Panigale or the Honda RC213V MotoGP machine pictured here.




ARI HENNING



KEN  
CONDON



## LOOKING FOR TROUBLE

 It's easy to take your visual skills for granted, but don't. You can't afford to have lazy eyes when your survival depends on getting critical information to your brain as quickly as possible. Eyes that are on high alert help you avoid mishaps and keep small problems from becoming big problems. How effective your visual skills are can mean the difference between a minor annoyance, a scary close call, or a full-blown crash.

Mindlessly staring ahead just won't cut it. You've got to aggressively look for trouble before trouble finds you. Scan side to side, far and near, and up and down to spot errant drivers and sketchy surfaces. When approaching corners, look for clues to help identify the radius of the curve. And don't forget to check your mirrors and do quick over-the-shoulder head checks to monitor your blind spots before changing lanes. The hard part: Prioritizing hazards to prevent devoting too much attention to relatively minor problems and missing more serious hazards.

Surviving in traffic means being on the lookout for subtle clues that can signal trouble, like driver head-and-arm movements and flashes of sunlight on glass or chrome from a turning vehicle. Keep your eyes moving like radar, scanning for anything that doesn't seem right. Use peripheral vision to monitor nearby

obstacles while keeping your vision high and wide. This wide view gives you the best chance of spotting the enemy while also reducing speed anxiety by visually slowing down the passing landscape. As speeds increase, look farther ahead so you have enough time and space to deal with problems calmly.

You can't spot problems if you don't have a clear view ahead, so avoid tailgating and choose lane positions that provide the best sight through curves and around surrounding vehicles. Not only will this allow you to see better, but it also allows others to see you.

Your eyes not only gather information, but they also play a key role in getting your bike to follow a desired path. This tendency is referred to as "visual direction control." By looking where you want to go you are telling your brain and muscles to go there.

Visual direction control is great for helping direct your motorcycle through turns, but it's equally useful when you need to avoid obstacles. Be sure to look where you want to go because fixating too much attention on a hazard can cause you to steer toward it. This is called target fixation. When trouble appears, avoid the negative magnetism of target fixation by looking to the corner exit or escape route instead of focusing on the guardrail or obstacle.

Most solo accidents occur when a rider enters a curve too fast (for their ability) and freaks out. Many times the bike could have easily made the turn but didn't because the rider gave up and looked at the edge of the road in defeat. While eyeballs cannot physically turn a motorcycle, your visual focus makes clear your intention to lean more and complete the turn.

When cornering, let your eyes scan from entry, to apex, to exit while maintaining a wide field of view. "Ratchet" your eyes forward from one visual target to the next to chart a course that forms a smooth cornering path. Glance downward as needed to get a closer look at possible road surface hazards, but then return your eyes and attention high and wide through the curve. Because you are turning, your eyes will naturally follow a diagonal "up and down, far and near" scanning pattern.

Sometimes conditions impede our ability to see. Slow down when weather conditions, fading light, solar glare, or fatigue prevent you from seeing far enough ahead. And remember, your aging eyes and reflexes might not be as sharp as they used to be, so ride accordingly.

Being visually vigilant will make you safer and more confident. Keeping your visual skills sharp is one of the best ways to be a safer and more competent rider.



## FLAT HAPPENS

**Q** There are four riders in my family, and we have a total of seven motorcycles—two vintage bikes, five modern. Since there aren't enough of us to ride all the bikes at the same time we alternate taking them out to keep the gas fresh and the batteries charged.

Recently two of the batteries, one in a vintage bike and another in a modern one, went flat, and when I took them to the shop to have them recharged I was told they were no good and would have to be replaced. The vintage one showed what the mechanic called sulfation—white chalky stuff in the bottom of the battery. He said the load test showed the modern sealed battery was probably sulfated too. So I bought two new batteries and a couple of battery chargers to put on the bikes that don't get ridden much. Will this solve the problem, or am I looking at buying five more batteries soon?

Tyler Drake / San Diego, CA

**A** Our advice is to buy a few more battery chargers—or maybe just create a routine where every bike gets on the charger for two to four weeks at a time. And make sure they're float chargers that bring the battery to a full charge and then go into a "sleep" mode until the voltage drops enough to turn the charger back on. This prevents overcharging, and thus overheating, the

battery; it's especially important with a wet or flooded battery (the kind you add electrolyte to occasionally, as opposed to a sealed battery).

According to Deltran's Larry Gordon, there are common causes of battery failure. Low charge, or a complete discharge, over time leads to the sulfation you saw; sulfation can kill a sealed battery, too, if it's insufficiently charged or allowed to go flat.



Vibration or impact can separate the plates in the battery or break the connection between them. If one of those vintage bikes is a big single, this is the first thing to look for. Take a moment to check the voltage across the battery terminals with the engine running to get a read on each bike's charging system. The voltmeter should read 13.8 to 14.2 volts with the engine above idle. More and you're probably cooking the battery. Less and it's unlikely to be getting a full charge while you ride.

—Jerry Smith

### YOUR TURN!

We know you have a question you're just dying to ask, so send it to us already at: [mcmail@bonniercorp.com](mailto:mcmail@bonniercorp.com)

## → RETAIL CONFIDENTIAL MAKING SAUSAGE

**⚙️** I hear it all the time: "Jeff, you're so lucky to work at a dealership. It must be a blast hanging out with customers and talking about bikes all day long."

Who am I to complain? It actually is a pretty good job, and anyone with a passion for motorcycles will find working in a shop to be quite interesting. But like any business, eventually you find out how the sausage is really made. Let me give you a peek behind that curtain.

Whenever we hire a new salesperson, it is usually someone who frequents the shop. This is a logical choice; they have the enthusiasm and an obvious interest in motorcycles, so it's usually a good fit. Techs, on the other hand, can come from

any of the motorcycle technical institutes or from other shops. Good help can be hard to find, as this business requires extensive product knowledge, long working hours during the prime selling season, and, above all, an outgoing personality. Oh, and a desire to live an ordinary lifestyle because the compensation is pretty average.

I was surprised by the inner workings of the shop when I was hired—how deals are put together, how financing, trade-ins, and payoffs work, and the many systems to support the customer after a sale. There's more to it than you'd think, seeing it from the outside, and our goal is to make each transaction as seamless as possible.

I've witnessed good customer service,

and I've also seen the ball get dropped—though the customer, so caught up in the excitement of buying a new motorcycle, might not have noticed. Excitement can mask hiccups in the customer-service process. Each department within the dealership puts a lot of pressure on the others to deliver an excellent customer experience, but we aren't always at our best.

If you have ever had a bad experience at your local shop, you know what I'm talking about. We have no motivation on our part to make any buyer's experience bad, but occasionally mistakes are made. If dealership management cares enough they will fix the problem for you individually and, one hopes, also fix the system that broke down. Good dealers learn from their mistakes.

If you have any desire to go from customer status to shop employee, keep in mind it's not all what it appears. It is a fun job with a many built-in perks, and more often than not it can be exactly what you hope it will be. But you will work hard for your riding money.

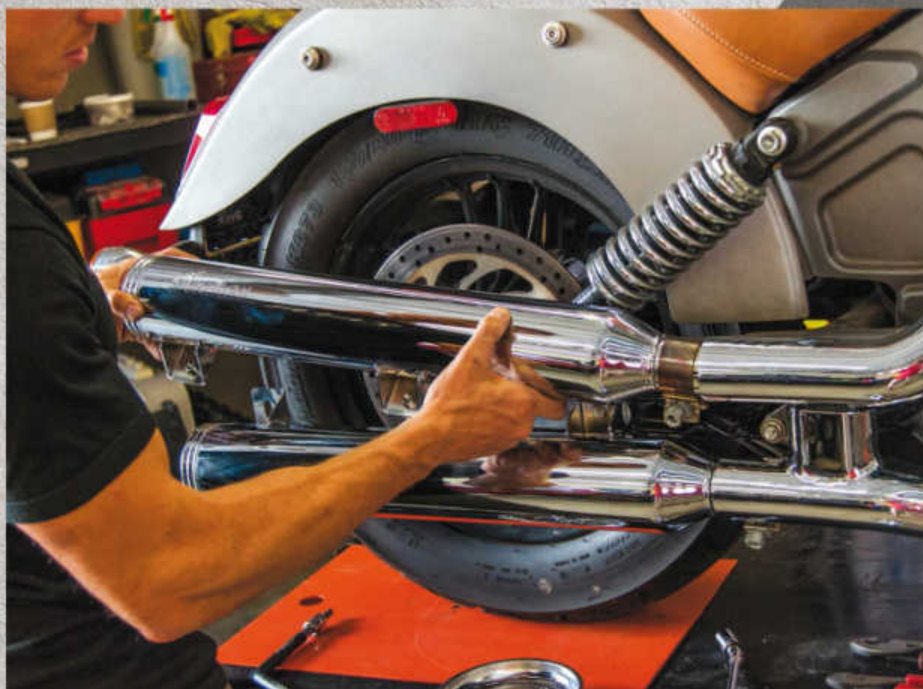
*Jeff Maddox is the sales manager for a multi-line dealership in the Midwest. Questions for him? Email us at [mcmail@bonniercorp.com](mailto:mcmail@bonniercorp.com).*




JEFF  
MADDOX

"Good help can be hard to find, as this business requires extensive product knowledge, long working hours during the prime selling season, and, above all, an outgoing personality."





## EXHAUST SWAP

 A new pipe is high up on most owners' list of desired modifications. Swapping exhausts is usually pretty easy, but the job will vary based on the style of bike and the number/layout of the cylinders. Singles are the easiest, while V-4s can be a nightmare. Whatever your layout, the steps are essentially the same as those outlined below.

*In case you're wondering, we're putting the quieter Indian accessory pipes back on Hatano's long-term Scout.*



**1** If the bike was running recently, give it an hour to cool down. Even if the headers are cool to the touch, the collector or muffler(s) may still be scorching hot—catalytic converters are good at holding heat.



**2** Most modern bikes have one or more oxygen sensors and perhaps an exhaust valve downstream of the collector. Follow these parts' wires or cables back to the harness or control motor and disconnect them.



**3** Loosen and remove the exhaust fasteners, starting at the muffler(s) and moving forward. Support pieces as you loosen their fasteners to reduce stress on slip joints and studs.



**4** Transfer the oxygen sensors to the new exhaust system, and remove the header gaskets from the exhaust ports if they didn't fall out on their own. It's always a good idea to replace these compressible exhaust gaskets.



**5** Install new gaskets and begin mounting the components, but leave the fasteners finger tight. Once you have everything in place, verify the pipes' alignment and then torque the fasteners, moving from the headers back to the muffler.



**6** Reconnect the oxygen sensor lead(s). Wipe fingerprints, grease, and grime from the pipe with a clean rag then start the bike and check for leaks. It's a good idea to recheck all the fasteners after you've ridden the bike for several hours.



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## Yamaha YZF-R1

WRIST: Zack Courts

MSRP (2015): \$16,490

MILES: 696

MPG: 30 (from our superbike test)

MODS: None yet



When my dear ol' dad visited earlier this year I gleefully forced a bunch of new-fangled motorbikes on him. It was veiled as heartfelt reparations for his priceless contributions to my motorcycling life, but arguably it was an effort to see him squirm nervously outside the comfort of his Airhead-BMW bubble. At the end of his stay in California he declared this new R1 his least favorite of the bunch he sampled. Admittedly, it was the only true sportbike he rode, but his criticisms of riding position and ultra-tall gearing are totally legitimate; it's not the most practical bike.

If you're a 60-something like my pops

you might find yourself disinterested in the R1, too, in which case look at it this way: This is the intersection of normalcy and cutting-edge technology. The R1 is the cheapest motorcycle to have essentially a full suite of rider assistants (apart from electro-suspension). Pretty soon, six-axis accelerometers will be as ubiquitous as ABS, but until then this is the most accessible slice of the state of the art.

And I have to say, riding it around feels wholly futuristic. I'm still consistently amazed at how glassy smooth the engine can be, all from a unit that is 8 pounds lighter than the previous generation while making

more power. The electro-doodads are cool too. Each little segment of the LCD dash is adjustable, so the rider can tailor what information is seen on the screen, whether it's race mode, street mode, day or night, etc. It's an amount of options that is going to take some getting used to, which is why I'm glad I have my hands on this baby for a while.

Like all of my long-terms, I intend to participate in every facet of motorcycling, within the bounds of reason. I will be taking the R1 to the track and experimenting with just how capable the base model's KYB suspension is at racing speed. As a streetbike the R1 is pretty darned comfy (for a superbike, that is), but I'm still plotting ergonomic changes. Some adjustable footpegs and different seats might make it more tolerable over long distances, which I also plan to tackle.

I might not be able to resist playing with the exhaust a little, though I'll admit I think the R1 sounds terrific, and I probably don't need more than the 167 hp it already laid down on the dyno. Lastly, superbike mirrors are historically both heinously ugly and almost useless for seeing what's behind, and unfortunately the R1 does little to differentiate itself in this category. I'm not sure what the solution is, but someone on the Internet surely sells a product to address it, right? That Internet has everything!

I've never owned a sportbike, mostly because my all-motorcycle lifestyle sways my taste toward versatility and practicality. It's a category that is hugely popular, though, so maybe there's some mystique and charm hidden under all of that bodywork. Time to find out.



## KTM RC390

WRIST:

Ari Henning

MSRP (2015): \$5,499

MILES: 869

MPG: 54

MODS: None



I'm a big fan of small bikes. That means I'm pretty excited about the 373cc KTM RC390 that's my latest long-term. The RC390 is proof that manufacturers are taking the small-bore class seriously, and it sets a new precedent in terms of style, power, and handling. This isn't just a beginner's bike; it's a small sportbike with a price, size, and performance that

happens to be suitable for beginners.

As it stands, the RC390 is a fantastic package. Forty-ish horsepower is plenty, and 365 pounds wet is mighty light, but I'm a tinkerer at heart. I'll evaluate some of the after-market parts already available for the RC390 and hopefully provide some valuable insight for actual RC390 and 390 Duke owners. For the time being though, I'll ride the bike as is and enjoy banging gears and rolling the throttle to the stop—all without breaking the speed limit.





## Indian Scout

**WRIST:** Brian Hatano  
**MSRP (2015):** \$11,299  
**MILES:** 5,920  
**MPG:** 40  
**MODS:** Trask handlebar



UPDATE

**H**ave you ever tried to bend your own handlebar? It's not as easy as it seems. Even using the best Mittler Bros. electric-hydraulic bender and calculating the project with Bend Tech software, I sent three 10-foot lengths of steel tubing to the dumpster before I succeeded in making my first set of custom apehangers. There's

nothing like discovering how difficult a fabrication task is to make you truly appreciate a good-quality aftermarket product.

As comfortable as it was, I desperately wanted to get away from the pullback style of the OEM bar. I considered making my own bar for the Scout, but the moment quickly passed when I saw the Trask Performance V-Line handlebar ([traskperformance.com](http://traskperformance.com); \$280–\$310). Available in chrome, black, or raw finish, the V-Line is made from 1-inch-OD seamless DOM (drawn over mandrel) steel tubing with

ends that reduce to 7/8-inch just like the stock bar. According to the Trask website, the V-Line is a “direct bolt-on replacement” designed to use OEM Indian controls.

The change-out process is doable for all but the most ham-fisted DIYer—easier than a comparable swap on a Harley-Davidson thanks to a thoughtful ride-by-wire throttle assembly and no cables to loosen and readjust. As long as you map the removal of each control (remember how you took it apart), you'll have no problem reversing the process.

If you're a new Scout owner with plans to perform your first handlebar swap, don't be intimidated by the unknown. The Trask V-Line handlebar is a perfect fit with no hidden surprises. Just take your time, use the right tools, and allow yourself a few hours to complete the job.

I'm extremely pleased with the new Trask bar. Not only does it create the more aggressive look I'm after, it's no less comfortable than the stock setup. Combined with Indian's reduced-reach seat, the Trask bar puts me in a more sporting position with a slight forward lean, just enough to bring the controls closer. I'll be keeping this bar on the Scout until the bike goes back to Indian.



## Suzuki V-Strom 1000 ABS

**WRIST:** Marc Cook  
**MSRP (2014):** \$12,699  
**MILES:** 14,868  
**MPG:** 40  
**MODS:** SHAD seat, G2 Throttle Tamer

UPDATE



**B**efore I jump into the modding and wrenching as I normally do in these long-term installments, let me backtrack a bit. As you can see from the low number of miles this month, I've been riding a bunch of other bikes, including those more or less in the V-Strom's category. And when I eventually get back on the Strom it's like coming home and finding that the fridge is full of beer and the sofa cushions are just as comfortable as when you left.

In a dozen ways big and small, the V-Strom 1000 takes care of you. For

starters, the beefy V-twin always has torque. Always. And while I've been teased by the high-horsepower offerings from the Europeans lately, I can honestly say that V-Strom has enough juice to make it useful and entertaining for the everyday commute. Eye-bulging fast? Nope. But that's not what the Strom is about and, similarly, not the reason people buy it. Aside from footpegs that could stand to be back an inch or so, the ergonomic layout, now returned to stock, is perfect for everyday use. The suspension remains amazingly supple. Vibration is never intrusive. It's easy in our business to get blinded by pure performance and the sweet smell of the new. The V-Strom has been in my life long enough that I'm past that “new” stage, and yet the bike continues to impress.

Still looking for improved throttle

response, I've combined a new map in the Power Commander with a G2 Street Tamer throttle tube ([g2ergo.com](http://g2ergo.com); \$80) that provides more progressive throttle action. I used a G2 Tamer on my previous long-term and that provided a modest but useful softening of throttle response. Same deal here. I'm most interested in smoothing the transition from partial throttle to idle, where the current bike is too abrupt. The G2 definitely helps here, though it does not eliminate the problem. I also leaned the Power Commander map slightly off the bottom to purposely soften delivery, and that helped as well. I'm starting to believe this is just the nature of the beast and that the smoothness and progressiveness found in the best ride-by-wire bikes is simply not achievable in the V-Strom. So be it.

Although I've been happy with the stock seat, I decided to try the new SHAD Comfort Seat ([shadusa.com](http://shadusa.com); \$400). It has slightly larger “contact areas” for rider and passenger, with what feels like slightly softer foam. It's still narrow at the front to keep the effective seat height down. I'm just starting to ride with this seat, but I like it a lot. More next month.

Several weeks before our Zero S long-termer was due back we installed the optional Givi luggage (21-liter E21 top-loading side cases and a 33-liter Trekker top case) and a windscreen so we could try the Zero in touring trim ([zeromotorcycles.com](http://zeromotorcycles.com); sidecases, \$600; trunk, \$550; screen, \$190).

The added utility is great, and although none of the three cases can hold a full-face helmet, there's ample room for a weekend's worth of clothes or three bags of groceries. The tinted windscreen, designed in collaboration with MRA, offers good wind protection for your torso while leaving your head in clean air.

The accessories are functional, but they don't do anything to help highway performance. Editor in Chief Cook observed that added aerodynamic drag reduced the bike's top speed on the freeway and made the motor run hotter. Range likely suffered as well, though we didn't do any back-to-back testing to verify how much.

Our time with the Zero S was shorter than the usual 12 months, but it doesn't take much seat time to assess the Zero's



## ZERO S

WRIST:  
Ari Henning

MSRP (2015):  
\$17,840

MILES: 1,643

MPG: Not a concern!

MODS: Givi luggage, MRA windscreen



SO LONG!

MARC COOK

capabilities, focused as they are. Its prime purpose is an around-town commuter and, to a lesser extent, a plaything for joy rides—the length of which will depend on how aggressive you are with the throttle. The most range I ever saw between plug-ins was 75 miles, but all of my rides included high-speed highway travel—the worst-case scenario for an eBike.

Several staffers took the Zero's key to

see if it satisfied their daily needs, and it worked—with varying degrees of convenience—for everyone. Online Editor Brian Hatano's 48-mile commute meant he had to plug in at the office to make it home, while Cook's 29-mile commute drained a fully charged battery to a little over 50 percent. My 13-mile jaunt let me go several days on a single charge.

As a daily rider, the Zero S is excellent. The only significant complaints pertained to the hard seat and a lack of off-the-line acceleration. On the plus side, I love how simple this single-speed bike is to operate and that I can delete gas stops from my weekly routine. Ease of use is unparalleled: Plug it in and keep air in the tires—otherwise just ride. With no fluids (besides brake fluid), filters, or spark plugs to change and a low-maintenance belt final drive, the Zero is as easy to take care of as a houseplant.

If you're looking for a dynamic riding experience, however, the Zero might leave you dissatisfied. Zero's silky smooth and silent power delivery will either intrigue you or bore you; a diminishing charge might serve as a challenge or a source of anxiety; the high price might strike you as a worthy investment or a sound argument for internal combustion. It all depends on your perspective and expectations.

Zero made lots of improvements for 2015. This latest bike has better brakes (with ABS standard), improved suspension, higher-spec tires, and refined throttle response. Is it on par with an equivalently priced gas-powered bike? Not even close. But the all-electric Zero S is a viable transportation option and one of the most refined machines in the category.

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## Harley-Davidson Road Glide Special

WRIST: Andy Cherney  
MSRP (2015): \$23,699

MILES: 13,125

MPG: 42

MODS: Windshield deflectors



UPDATE  
09



The last few weeks have been spent riding other bikes for evaluation, so the Road Glide has been sitting idle for a good chunk of time. When I got back in the saddle I was afraid it'd feel really porky and unbalanced compared to the lighter-weight machines I'd just been on, but it turned out to be pleasantly accommodating. I'm really used to this thing, even around town; the handling is predictable, even considering its heft, and it feels like an old friend probably because the ergos remain spot on for me, even with the optional taller seat.

After close to a year of steady riding (some of it pretty harsh), the bike has been nearly flawless thus far. Although others would argue it's got a heavy throttle and isn't exactly nimble in corners, it's better than many other bikes in the class and, frankly, handles exactly as I expected it to. Except for the occasional floorboard scrape, it suits my riding style pretty well. The Twin Cam 103 has become one of my favorite cruiser engines for its manners, reliability, broad powerband, and ample juice in reserve, if you really need it. The torque comes on strong early and pretty much stays there for a good while before signing off, but it's never overly abrupt either. The EFI on this Harley is excellent thus far and the ABS-enabled brakes likewise. Despite the short windshield, wind protection isn't too shabby, but I have noticed that higher-speed runs occasionally get turbulent, forcing me to tuck in to obtain some peace and quiet from wind blasts.

I've been using the Glide mainly for in-town duty lately, so fuel economy has dropped but not dramatically. But since another long tour is coming up, I ordered the Road Glide Wind Deflector Kit ([harley-davidson.com](http://harley-davidson.com); \$40) recently released by H-D. The snap-fit deflectors are supposed to reduce and redirect the airflow that comes up between the fairing and fork tubes (which I've only really noticed on long, high-speed stretches of highway), but it's an easy install, and if it reduces buffeting even minimally, that's a bonus. The deflectors simply snap onto the engine guard tubes and can be pulled off when you want more airflow, which sounds really handy. I'll be curious to see how they work on my upcoming ride out to Sturgis—1,500 miles one way.

Most importantly, I've scheduled a tire swap before the long journey to South Dakota, as the rear Dunlop is starting to show some squaring and tread wear. Even though H-D didn't give me many options (yep, Dunlops again!) I'd rather be safe than sorry, so stock rubber it is.

Snap-on wind deflectors fill the small gap beneath the frame-mounted fairing and are said to reduce upward airflow, preventing the dreaded "beard lift."



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## 1998–2003 YAMAHA YZF-R1

**⚙️** Sportbikes evolve faster than the unexpected dinner guest from *Alien*, resulting in faster, lighter, and more menacing models every few years. But far from going quietly extinct, the ancestors of today's cutting-edge models still prowl the back roads and go hunting on track-days. And while they're no longer the top predator in the power-to-weight jungle, some rule in bang-for-the-buck territory. One such example is the first-generation Yamaha YZF-R1, a beast when it debuted in 1998 and still surprisingly sharp-clawed and red-eyed today.

By the mid-1990s Honda's CBR900RR ruled the literbike roost. Yamaha's last entry in the class, the FZR1000, had been dropped in 1994, replaced as top dog in its sporting lineup by the FZR750. That bike's five-valve Genesis engine, which had debuted in the FZ750 way back in 1985, got its first major redesign for use in the R1. The most notable upgrade was a transmission with the two gearbox shafts stacked vertically rather than one in front of the other. The goal was a shorter, more compact engine that could be positioned in the frame for better mass centralization and permitted a longer swingarm for better handling without increasing the wheelbase.

One holdover from the FZR1000 was the EXUP

valve in the exhaust system that boosted midrange without restricting top-end power. Abetted by a quartet of 40mm carbs, the YZF-R1 spit out 140 hp and produced exceptional torque throughout the powerband. The chassis was graced with a 41mm inverted fork with 300mm semi-floating front discs, and the electronic instrument cluster incorporated fault-diagnosis settings as well as digital readouts. After minor updates in 2000, in '02 the R1 got a major facelift, plus the addition of fuel injection, new high-silicon cylinder sleeves, and a Deltabox frame that improved rigidity by 30 percent.

A used first-gen R1 is still a raucous ride today. If the one you're looking at doesn't have a steering damper, you should probably put one on your wish list. Don't be put off by a rough-sounding snarl from the engine on start-up—this is one of those times the old sellers' excuse, "They all do that," is probably true—but once it's warm listen for the usual valve clatter, lower-end rod knock, and anything else that doesn't sound right. Abundant torque down low means the EXUP is working; if it's not you might as well go ahead and swap out the stock pipes for aftermarket, a mod many owners advocate.

The light, short, and powerful R1 can turn just about anybody into a wheelie king, so check the steering-head bearings for smooth, notch-free operation

**CHEERS**  
Absolutely insane performer. In the right hands still a threat to modern sportbikes.

**JEERS**  
Getting hard to find a clean one. As a commonly beat-upon supersport, the R1 is prone to a hard life.

**WATCH FOR**  
A fragile second gear, bad clutch, EXUP out to lunch.

**VERDICT**  
Still crazy after all these years. The Saturday-night special of literbikes.

**VALUE**  
1998 / \$2,795  
1999 / \$3,005  
2000 / \$3,250  
2001 / \$3,520  
2002 / \$3,855  
2003 / \$4,225

### ALSO SMART...



#### 2004–2006 YAMAHA YZF-R1

Yamaha advanced the R1 significantly for 2004, crafting a new aluminum Deltabox chassis to house a short-stroke variant of the 20-valve inline-four engine. Now 77 x 53.6mm, compared to 74 x 58mm, the R1's bore and stroke indicated Yamaha's desire to raise the rev ceiling and add copious horsepower. Underseat exhaust debuts here too.



#### 2007–2008 YAMAHA YZF-R1

For 2007, Yamaha reluctantly gave up on the Genesis five-valve combustion chamber for a more conventional four-valve setup. It also got a version of Yamaha's ride-by-wire system with variable-length intake funnels and a slipper clutch. The chassis was further refined and modernized, with audacious six-piston radial-mount front calipers.



#### 2009–2014 YAMAHA YZF-R1

A five-year run for the groundbreaking Crossplane R1. Staggering the connecting rods at 90-degree angles made a four-cylinder engine sound like a twin and put down a mix of low-end torque and high-end horsepower that promised the best of both worlds. With switchable power modes from the start, traction control arrived in 2012.

and watch for leaking fork seals. The fairing and other plastic parts are thinner than those on other bikes of the time, so look for cracks. Very early models were the subject of a clutch recall, and slipping out of second gear means splitting the cases to replace a detent spring. Other than checking the oil frequently, however, most are reliable and get by just fine with regularly scheduled attention. —Jerry Smith



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# SAFER MOTORCYCLES? START WITH SAFER CARS.

**M**otorcycling is on the edge of a revolution. In the next five to 10 years, fatalities and serious injuries are going to fall like unicycles on ice.

There's a demographic factor: Old baby boomers crash less than young baby boomers. But the main difference will come from improvements in the cars we so often hit. At least half of all serious-to-fatal motorcycle accidents involve an auto "violating the motorcycle's right of way." Mr. Distracted Driver, waiting to turn left, doesn't see me on my GPz550 and pulls into my path. Boom. So we keep our eyes peeled and our antennae up. We send noobs to MSF courses, we practice our trail braking and swerving, and we wear glowing high-viz jackets. But we still get nailed. As long as car drivers can ignore incoming Kawasakis, these accidents will keep happening.

One solution is coming from Sweden, of all places. In 2012 Volvo announced that by 2020, nobody would be killed or seriously hurt in a new Volvo. The Swedes already make their cars as crashworthy as possible. But the main focus of this latest effort is preventing accidents from happening at all. Volvo engineers realized that by preventing cars from leaving the

road or hitting anything on the road, they could eliminate deaths altogether.

Volvos will soon be driver-proof. If drivers can't avoid cars, pedestrians, or V-Stroms, their Volvos will do it for them. Using radio, acoustic, and visual sensors, they will brake and steer automatically. Leaving your lane? Your Volvo will steer you back. Moose in the road? Your Volvo will dodge it. Humans have two eyes and use them sporadically. A modern car can have its virtual eyes looking left and right, forward and back, up and down, all at the same time.

Cars are also becoming telepathically connected. Soon, if the car ahead dodges that moose it will also alert your car. Which will be able to warn you, change lanes, slow down, even tune its steering response and suspension settings for optimum moose-avoidance. Like the rider ahead of you pointing out a rock with his foot—if his foot could reach all the way to your brake pedal, that is.

I like the idea of a car I can't hit. I like knowing I can't be in the blind spot of a car that has no blind spots. A driver might not see me, but if her car doesn't lurch into me, I still make it home. Volvo is leading this charge, but the other major car companies are drafting close behind.

I rented a new Volvo V60 in England last summer, and it could drive itself on the motorways, holding its place in traffic while I sat back and relaxed. When traffic braked for Stonehenge, so did Mr. Volvo, as smooth as Pharrell Williams.

Libertarians are howling. I hear you. I like to steer myself. That's why I drive an old, analog sports car and ride motorcycles that, for the time being, still need me. But for every car driver who enjoys driving and does it well, there are three or four who don't. I'm fine with riding undamaged past a crappy driver, even if that means the crappy driver gets to watch the game.

Motorcycle technology, of course, will soon catch up. KTM, BMW, and Ducati already offer Bosch Motorcycle Stability Control, which tailors braking and power to available traction. Car companies like Honda, BMW, and Audi (which owns Ducati) also make motorcycles, which will soon be able to detect and avoid bad stuff just like their cars. Lives will be saved. We'll have more old friends to talk to.

Nobody's going to force us to buy these smarter motorcycles. But because of what Volvo is doing to save ditzzy soccer parents today, there might be a lot more of us motorcyclists still riding around in 2025.



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